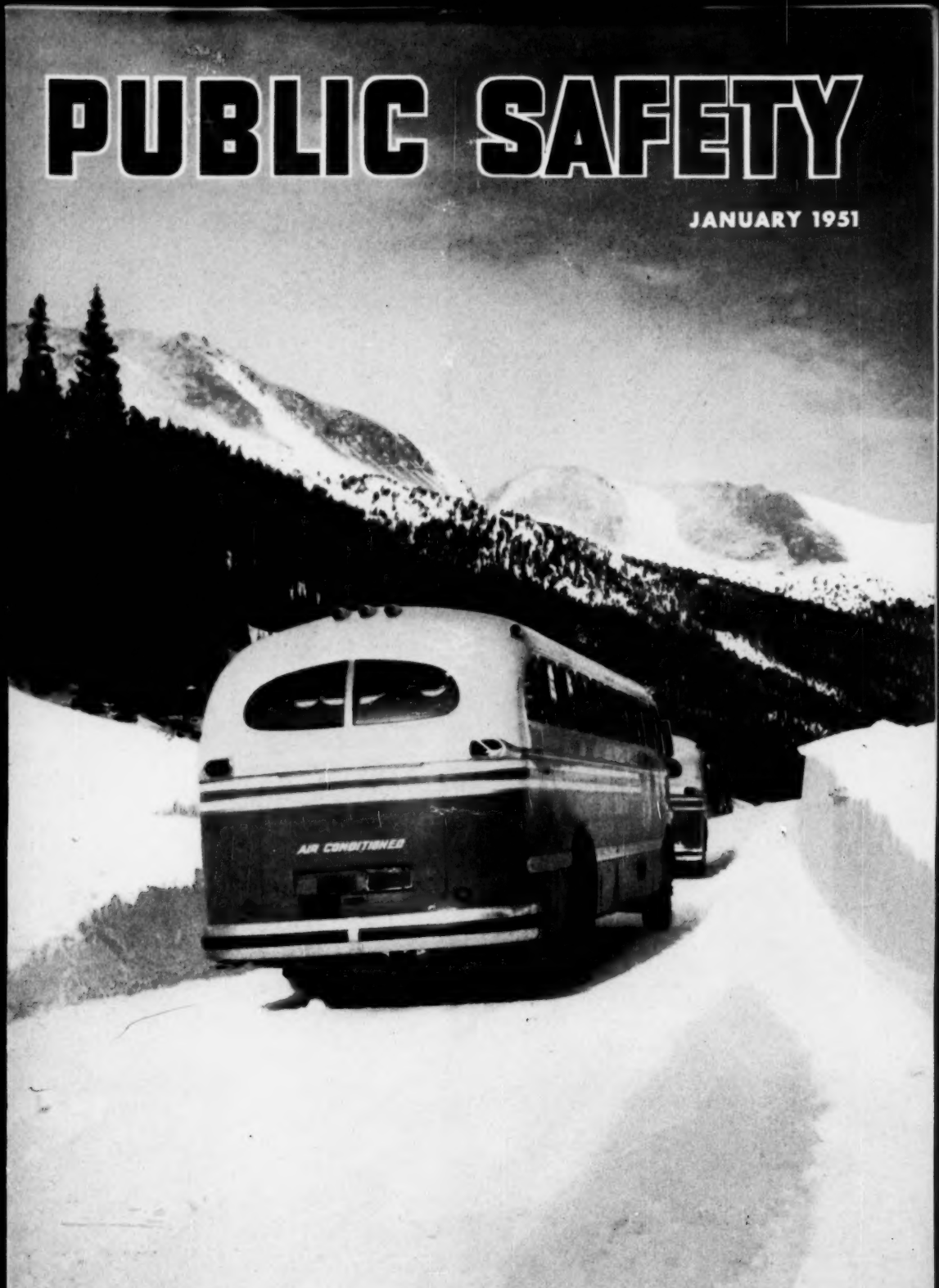
PUBLIC SAFETY

JANUARY 1951



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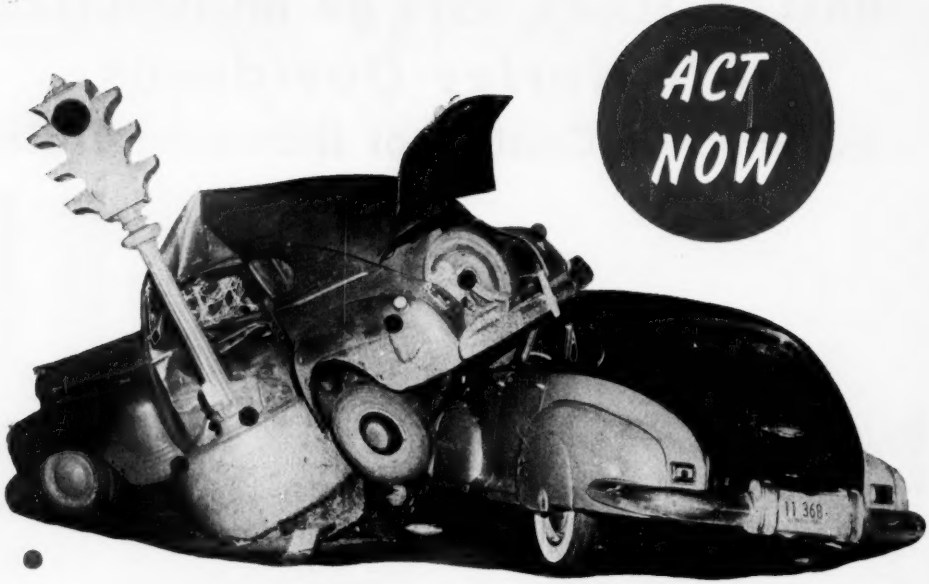

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PUBLIC SAFETY

JANUARY, 1951

VOLUME 39, NUMBER 1

. . . BETWEEN STOPS . . .

COVER for PUBLIC SAFETY for January shows an intercity bus negotiating the famed Loveland Pass in the Colorado Rockies, but the piled-high snow shown in the photo is no stranger to Americans the nation over, who have dug themselves out day after day as an early and old-fashioned winter threw blizzards and storms over our geography with an abandon not seen in years. By the time you get this copy of PUBLIC SAFETY, New Year's will have come and gone. Let's hope, though, that you have included safety in those plans for the coming year. Our musings run like this: "Keep checkin' on myself to see that everything's done to make it a *safer* '51."

* * *

And no final word on 1950 would be complete without a word of protest about the futility of traffic accidents. This was marked grimly as American forces braced themselves against a Communist onslaught in Korea, and word came of the death of General Walton Walker in a traffic accident behind the lines. Thus for the second time America lost a top ranking wartime leader—men who had withstood everything the enemy threw at them, only to die victims of the traffic juggernaut. Patton in Germany, Walker in Korea, who will be next? Both of these deaths prove conclusively that there is a high priority need for traffic control and accident prevention everywhere—on homefront and battlefront—if we are to conserve manpower and keep America strong.

* * *

Correction: In the article by Ross G. Wilcox, "What About Winterized Tires," see December issue of PUBLIC SAFETY, your editor was guilty of a *faux pas* of classic proportions. In summarizing conclusions on the performance of winterized tires we stated under item 6: "Mud-snow tires showed an average improvement of 20 to 30 per cent on loosely-packed snow and rough ice. As might be expected, they were of little or no benefit on glare ice. However one tire of this group, characterized by a *shallow stud on a rib base* (and we should have said *grooved lug*), showed improvement of 10 to 18 per cent in stopping on glare ice, 28 per cent on loosely-packed snow, 40 per cent in traction ability on glare ice, 71 per cent on loosely-packed snow and 6 per cent in cornering on glare ice."

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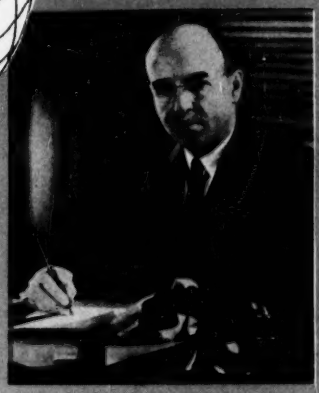

Sidney J. Williams

By Sidney J. Williams

IT IS a rare privilege to join with you in again paying tribute to our dear friend, David Beecroft. It is a distinguished honor to follow, in this series of Memorial Lectures, such illustrious Americans as the first Economic Cooperation Administrator, the United States Commissioner of Public Roads and the Chief Justice of the Supreme Court of New Jersey.

Paul G. Hoffman, Thomas H. MacDonald and Arthur T. Vanderbilt are outstanding leaders, each in his own field and in the larger service of his country. Each, with warm human interest in his fellow man, has seen traffic safety as a worthy end in itself. Each, as philosopher and statesman, has also seen in traffic accidents a reflection of the supreme problem of our age: how to reconcile Man, who has changed so little in 50,000 years, with the Machine, which was born only yesterday. Will Man be destroyed by the machines he has created? The atom bomb has put this question on every tongue, but traffic has killed more than the bomb.

Accidents Are Symptoms of Things Wrong

An accident, says the dictionary, is "Anything occurring unexpectedly." For our usage we add "and resulting in injury or damage." Why do these things occur unexpectedly, without plan or intent? Because something was wrong, in our environment, our institutions, or ourselves. In traffic it may be something wrong in the vehicle, the road, the driver or the pedestrian—often in all four of these at once. When these things go wrong, sometimes they bring death, injury or damage, but *always* they bring delay, inefficiency, altercations, frustrations.

As accidents are symptoms of things wrong, so Safety means doing things right. It means achieving what you set out to do. Forget about the personal injury, even the death; that's incidental. Safety means that the housewife got her curtain hung, because she stood on a stepladder, not a rocking chair; that the carpenter finished his house, because he built a strong scaffold; that you reached your office on time because you drove with skill and caution.

Safety thus is a *quality*, present or absent in everything we touch and everything we do. In a factory it is associated with good management and efficient production; in a community, with good government; in an individual, with skill, forethought, consideration for others. "Safety," says Governor Youngdahl of Minnesota, "is a way of life for us."

The root causes of accidents are the root causes of all the great problems of the age. The ways of Safety are the ways of peace, cooperation, successful living. Analysis of the specific problems of traffic safety in terms of the larger problems of living together in this Machine Age will, I submit, help us better to understand both.

Man and the Machine

It once was fashionable to assume that the scientists, inventors and engineers were building a fine new world in which everything would be lovely. The automobile was an outstanding example. A chicken in every pot and two cars in every garage would usher in the millenium. Government was a nuisance, of small concern to decent people; education became more and more vocational; Technology was all the God we needed.

But it didn't work out that way. After a World War and a Great Depression, Owen D. Young said in a commencement address:

> "We must not let this concurrent machinery of the physical and social sciences get out of balance. . . . I hope you in your generation will not confess to your incapacity to keep the sciences of government, of economics, and of the

social order in step with the most rapid advances — in promoting the material welfare . . .

"It will be necessary for you to find out what human behavior is, and then fashion the social machinery which will make for human happiness."

Had the generation which Mr. Young thus addressed in 1934 succeeded in the task he laid upon them, how different would be our world in 1951! Again, highway transport is an outstanding example. The mechanical control of the automobile is excellent; its social control through laws, education, custom and personal ethics has lagged far behind.

Most of us do not even understand the physical laws of motion and energy as they apply on the highway. We mistrust our statute laws and regard enforcement as a game between driver and cop, in which may the best man win. We think of driving as an inherent right, although legislatures and courts have repeatedly declared it a revocable privilege. Our traits of showing off, passing the buck, blaming the other fellow, trusting that everything will turn out all right, come into full flower behind the steering wheel.

Our whole attitude is adolescent. We blame the "teen-agers" for the very things we do ourselves. As individuals and as organized society we have not grown up to our motor cars.

Arnold Toynbee, who thinks in terms of millenia, has seen motor transport as an epitome of Western civilization. First he pictures "the pre-mechanical road" on which the problem was that "of getting the journey accomplished at all." Then the road of today, on which

"the problems of speed and haulage have been solved. . . But, by the same token, the problem of collisions has become the traffic problem par excellence. Hence

world we live in

on this latter-day road the problem is no longer technological but psychological. The old challenge of physical distance has been transmuted into a new challenge of human relations between drivers who, having learned how to annihilate space, have thereby put themselves in constant danger of annihilating one another.

"This change in the nature of the problem has, of course, a symbolic as well as a literal significance. It typifies the general change that has occurred over the whole range of our modern Western

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Congress Street interchange is an example of how the highway can be designed for drivers as they are. Flexible system of traffic control takes cognizance of the "human element."

social life. . . . Everything that is now done in our society is done, for good or evil, with tremendous 'drive'; and this has made the material consequences of actions and the moral responsibility of agent far heavier than ever before."*

If we have not yet learned how to live with the automobile, which as a rule kills only one or two at a time, how can we hope to live with the radioactive atom which is 100,000 times more deadly? A devout and simple person, such as my grandmother was, might indeed say that the Lord had given us the automobile as a test, a proving ground on which through a few decades of relatively harmless experimentation we might develop social mechanisms to cope with both the Machine and the Atom: or, failing to develop them, face a deserved extinction. For such a test the motor car is ideal because of its universal use, its many blessings, its great mechanical power and the inevitable temptation to misuse that power.

Motor transport has in fact severely tested both us and our institutions. If we have not graduated *cum laude,* neither have we been flunked out of the course. We are slowly learning how to live with the automobile, and what we have learned may even help us to live with the Atom.

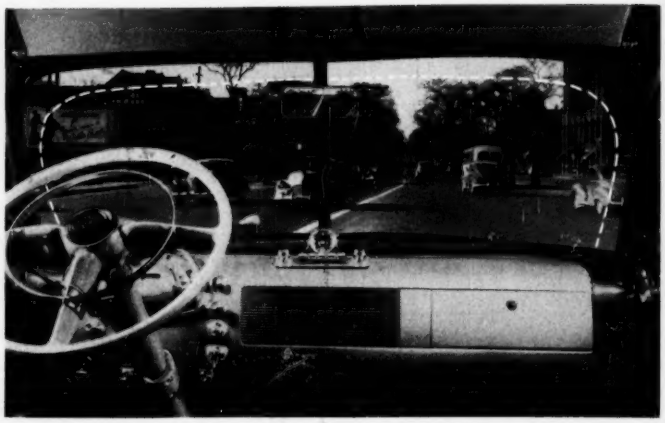
The Engineer's Responsibility

Technological progress has broadened our concept of the engineer's, and the manufacturer's, responsibility both for the integrity of their product and for its eventual use.

This was not much of a problem when the product was a plow or a pair of shoes and the designed-maker lived next door to his customer. Then, the law could well say "Let the buyer beware." Now, an invention like the automobile, or a new drug, has millions of buyers, most of whom do not understand it; and it has great power for harm as well as for good. The spavined horse was a joke on the buyer; the brakeless jalopy is a public menace. Where the public welfare is at stake, *"caveat emptor"* is no longer acceptable either in morals or in law.

The task of the early highway engineer was simple: to build pavements and bridges that would stand up under flood, frost, and traffic. Then came the broader concept of the highway as one element in a great transportation system whose total function is to move people and goods rapidly, conveniently and safely. Finally, Commissioner MacDonald in his epochal Beecroft Lecture showed how the highway must be designed for drivers as they are, not as we think they ought to be. We are, today, a long way from having such a highway system but at least the concept is clear.

*A. J. Toynbee, A Study of History (Abridgement by D. C. Somvervell)



Dotted line indicates additional windshield space on new cars. Increased driver vision is recognized by traffic and automotive experts as a must for safe operation of vehicles.

Automotive design has followed a parallel course. At first we had to be content if the vehicle and the road were such that a careful, skillful driver could start from point A and arrive at point B without a breakdown. The driver had also to be a mechanic, ready to "get out and get under" an any moment.

Today a new car no longer carries a set of tools as standard equipment. Today your customers—which is to say, the public—expect much more. They expect not only the superlative mechanical performance which you have given them—and which is, incidentally, a bright star in the crown of our competitive free enterprise. They expect also a highway transportation system (including both road and vehicle) on which it not only shall be possible through skill and caution to avoid an accident but shall be difficult to *have* an accident. Modern ethical standards demand that our highway system like our factories be as nearly foolproof as possible.

There is no need to recite here the many steps you have taken toward that ideal. They include great improvements in the sturdiness and reliability of the car and its motor as well as the more obvious safety features.

Unsolved Problems in Automotive Design

On some problems however your progress has been less rapid. Among these are:

Driver vision or "blind spots" due to front and rear corners, exaggerated hoods and fenders, and other extremes of "styling." I don't want anothre Model T but it did let me see the curb.

Night vision, and particularly headlight glare.

Braking systems, especially for heavy trucks.

Accessibility of parts, for inspection and servicing. The "preventive maintenance" which we all urge would be simpler, hence more popular, if all vital parts were easier to get at.

Indicators and controls could be simpler and more foolproof, easier and surer to read and to apply. In aircraft design these items have been studied in minute detail by psychologists as well as engineers; granting the differences between piloting an airplane and an automobile, these findings still seem worthy of more attention by automotive designers.

Odd sizes of drivers, the very tall or very short, very heavy or very light, very long or very short of arm or leg, have received scant consideration. Must we not build cars, as MacDonald said of highways, for drivers as they are?

Other items would seem at least to deserve study. Bumpers could be better designed to absorb shock. Seat belts and even shoulder harnesses for

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WILLIAMS NAMED NSC CONSULTANT

Will drop administrative staff functions, but continue to serve Council on various special assignments

SIDNEY J. WILLIAMS, assistant to the president of the National Safety Council, reached normal retirement age December 31, after nearly 33 years' service on the Council's staff. His relationship with the Council will continue on a part-time basis.

Mr. Williams joined the Council staff June 7, 1918, as chief engineer. In 1924 he became director of the Public Safety Division and throughout the years has continued to supervise the Council's traffic and transportation activities. For the past five years he has been assistant to the president.

"During these years no American has contributed more to accident prevention than Sidney Williams," said Ned H. Dearborn, president of the Council, in making the announcement. "His wide range of knowledge, his personal integrity and his wise counsel have been appreciated not only among his staff associates but among a multitude of individuals and organizations throughout the nation.

"Sidney Williams has reached the normal retirement age. However, I am sure that safety people all over this country will be gratified to know that he will not retire as of that date, but that the Council will retain his services on a part-time basis. While his administrative staff functions will be taken over by others, he will continue to be available for consultation and for various special assignments.

"For example, he is chairman of the National Committee on Uniform Traffic Laws and Ordinances, chairman of the Safety and Industrial Health Advisory Board of the United States Atomic Energy Commission, and consultant to the Federal Safety Council, the President's Highway and Industrial Safety Conferences, and other bodies. These are only illustrative of the important roles he will continue to play.

"The name Sidney J. Williams is synonymous with high character, complete reliability, conscientious effort and devoted loyalty. The members of our Board of Directors, our officers, our various voluntary conferences, sections and committees, as well as the staff of the National Safety Council, will join in grateful praise for his unsurpassed contributions to the safety movement."

Mr. Williams was born in Milwaukee, May 12, 1886. In 1908 he was graduated from the University of Wisconsin with the degree of B.S. and in 1915 he received the degree of C.E. For several years he was engaged in the building construction industry and in 1913 became engineer for the Industrial Commission of Wisconsin.

Joining the National Safety Council staff as chief engineer in 1918 he figured prominently in the early history of the industrial safety movement and contributed much to the sound development of the Council's industrial program.

When the growth of traffic fatalities throughout the country focused the nation's attention on the need for greater preventive effort, Mr. Williams was selected to organize expanded public safety activities for the Council. His experience in industrial safety and his ability in organizing helped to make the Council a leader in the public safety field.

In 1934 when the national program of public works for the relief of unemployment was established by the Federal Government, the authorities were faced with the problem of accident hazards for millions of workers who had been employed on various projects. Mr. Williams was called to Washington and asked to organize a safety program. With the aid of safety men in all parts of the country, a program was inaugurated and the accident rates were held to a much lower figure than was anticipated.

In 1946 President Truman appointed him White House Consultant for the development of a safety program for federal employees. This led to the re-organization of the Federal Safety Council, and the inauguration or stepping-up of safety programs in many of the federal agencies which employ a total of some two million civilian workers all over the country.

Another important contribution by Mr. Williams to the Council's program has been the organizing and directing of the Member Training Courses through which representatives of many industrial concerns have come to Council headquarters for instruction in the fundamentals of accident prevention.

To list a number of committees and conferences on which he has served would require more space than is available here. He has also delivered many addresses and lectures before various groups on many and varied phases of safety and has written numerous articles for books, encyclopedias and periodicals. He is the author of The Manual of Industrial Safety published in 1927 and co-author of the high school textbook Safety.

In 1938 he received the C.I.T. Safety Foundation grand award for the greatest contribution to public safety during the year.

Just recently he was named Beecroft Memorial Award lecturer for 1950 by the Society of Automotive Engineers—the fourth person to be selected since the award was inaugurated. Other Beecroft Memorial Award lecturers were: Paul G. Hoffman, former ECA administrator; Commissioner Thomas H. MacDonald, U. S. Bureau of Public Roads; and Chief Justice Arthur T. Vanderbilt of the New Jersey Supreme Court.

Mr. Williams delivered his lecture January 10 before the annual meeting of the Society of Automotive Engineers in Detroit.

motor transportation panel

WHY USE THE NSC SAFE DRIVER AWARD?

The Participants:

***Discussion Leader:* M. G. BULLOCK, *General Chairman*, Transit Section, NSC, and *Supervising Engineer*, Safety Engineering Department, Transit Casualty Co., St. Louis, Mo.**

JOHN L. FARLEY, *Safety Counselor*, The Memphis Street Railway Co., Memphis, Tenn.

J. S. OSBORNE, *General Supt.*, The Cincinnati, Newport & Covington Railway Co., Inc., Covington, Ky.

CARL RAWLINGS, *Safety Dir.*, Phoenix Transportation System, Phoenix, Ariz.

ELMER SCHUEMANN, *Safety Dir.*, United Motor Coach Co., Des Plaines, Ill.

M. G. BULLOCK: It has often been said that a "kick in the pants is not far removed from a pat on the back." A student of psychology would likely accept the statement, but certainly anyone with even a bare working knowledge of psychology realizes there is a vast difference. In other words, the guy on the receiving end leaves no doubt as to the difference by his natural reactions. If you think a "pat on the back" to a deserving transit operator is advantageous, the National Safety Council's Safe Driver Award is *one way* to do it.

Of course it is natural that we have differences of opinion in our transit industry as to the necessity of *any* form of incentives (including the Safe Driver Award). Many believe the job, the wage, and the working conditions should be sufficient incentive for demanding and receiving safe working performance. Others feel that some form of incentive, such as the Safe Driver Award pin, offers enough "window dressing" to the job to make it well worth the effort and expense in improved employee and public relations.

Certainly everyone is entitled to his own way of thinking. Also, with some specific companies, certain local problems exist which temper the thinking as to propriety of using a Safe Driver Award, or *any other type* of incentive.

Our purpose here is to offer accounts of *actual practical experience* in the use of National Safety Council's Safe Driver Award Plan, and to let you, as individuals, decide if it is an accident control tool that will help you build a better safety record for your company.

JOHN L. FARLEY: The Memphis Street Railway Company joined the National Safety Council in 1947 and started to use the complete services of the Motor Transportation Bureau including the NSC Safe Driver Award Plan. During this period I was in the Research Department and I knew we were spending a lot of money for accidents. We had a cash award plan before we set up the NSC services and we kept it as a permanent, continuing feature of our operation.

We set up a special division with the necessary record system to participate in the NSC program. The man we picked for safety director could read the rules, follow them and use a little common horse sense in their application. Not much bookkeeping was involved.

The most amazing thing to me was the response of our operators. They were much more concerned with their records than they were with a bonus.

From a disciplinary standpoint, I believe I can sit down with a man and make him want to win the NSC Safe Driver Award much more easily than I can make him want to observe a set of safe driving rules.

Along with the Safe Driver Award, once a year our accident-free driver gets an invitation to a banquet celebration. We award pins about every three months. We publicize the awards in our newspapers, and sometimes the papers run pictures of Safe Driver Award winners. This is another reason why the drivers like it. The pin sets them aside as a professional expert—a *safe driver*.

The rules are those of the National Safety Council, an organization that merits the respect of the drivers, the general public, and the company alike. The Council has the necessary prestige to make the National Safety Council Safe Driver Award the hallmark of driver prestige. The rules are fair, they apply to each driver equally. It is a standard uniform application. When a driver has an accident, it is either chargeable or non-chargeable under the rules. The driver can appeal the decision of the company Accident Review Commitee to a Committee of Review of the National Safety Council. He knows the case will be judged on the rules—not on personalities. It appeals to the individual.

Our frequency rate in 1947 approximated 20 per 100,000 mvm. (motor vehicle miles). In 1948, our frequency rate was 12.42. In 1949, our rate dropped to 8.84, and

so far in 1950—through September—our frequency rate has been 6.33.

Our claims record gives testimony of the effectiveness of this balanced program. We have always had a good claims department and an excellent record in handling our accident cases. The reduction in accidents can be attested to by this record: In 1948, we trimmed 11.1 per cent off the money paid to claimants compared with the previous years. In 1949, the amount paid out was reduced by 9 per cent from the 1948 figure, 19.7 per cent from 1947, and the record for the first nine months of 1950 shows a 39.9 reduction.

Other factors have undoubtedly contributed to this reduction, but you will have to admit that the most effective method in reducing the costs of claims is to reduce the number of accidents. Our program not only reduces accidents, but also is an effective agent in limiting their severity.

Some folks in the industry still say, "We have our own program, we have cash awards," or, "We have a merchandising plan that works for us." My reaction to that is that when a program costs you money, it isn't the right program. The Council's services have saved us money, and haven't cost us a cent.

Of 629 operators, only 138 have never received one of these National Safety Council Safe Driver Awards during three and one-half years. This includes approximately 100 new employees.

Our frequency rate records clinch any argument about the Council's Safe Driver Award Plan. The amazing and gratifying thing about it is that our operator tell me *they want that pin!* They ask, "How can I get it? What more do you want?

JAMES S. OSBORNE: We have had a good experience since using the National Safety Council Safe Driver Award Plan. It has been a productive program for us.

Accident prevention is a matter of attitude. It seems to me that, when we overlook one of the most valuable tools in the field of attitude determination, we are ignoring a tremendous opportunity to build up a unified transit organization that begins with the operator and extends all the way up the line.

The NSC Safe Driver Award program is a precision tool. It must be set up as part of a well-considered, well-planned program. The Council tells us how to set up the program. It is realistic and offers valuable rewards for all who participate.

One evaluation of the strength of the Council's Safe Driver Award is in the attitude of the drivers. Our drivers actively desire the award on the basis on which it has been created. "For Experts Only," the Council's booklet, describes the way we think of it—an award for service beyond the call of duty. It's not merely a question of having no accidents.

We began using the Council's services in 1947. Prior to 1947, we had a pretty high frequency and we encountered plenty of accident hazards in our operations. In 1947, our accident frequency was 14 per 100,000 mvm (motor vehicle miles). The 1950 figures indicate that it will be 4.90 per 100,000 mvm. Our percentage of reduction began immediately with adoption of the Council's Safe Driving Award Plan. Up to 1947, we had experienced an upward trend. The first year we used the NSC services, our accidents dropped 20.6 per cent. The second year they went down 30 per cent. In the third year the reduction amounted to 15 per cent and that has been the reduction this year to date.

I don't think the National Safety Council is making any money on us. I find that in three years we have given out 532 NSC Safe Driver Awards. The Award Pins come to us without any extra charge as part of our NSC services. We gave 313 the first year, 142 the second year, and 77 in our third year.

I'm convinced that the greater the participation, the greater the significance of the NSC Safe Driver Award. We told our operators that we were giving the same national award in Covington, Kentucky, as other safe drivers were receiving in Los Angeles, California.

The Council's Safe Driver Award Plan is very simple. It needs precise grading if we want to keep up the quality of awards, but that's a small price to pay for real progress in accident prevention.

Since 1948 I have spent time in groups which reported that their claims costs exceeded their net costs. Our company has been, since 1948, in a group where the claims costs were much less than that.

We have had a reduction of from 18 to 20 per cent in claims cost over the three-year period since we installed the NSC Safe Driver Award Plan and I think you can count ours as one company which regards it favorably.

CARL RAWLINGS: The Phoenix Transportation System is 100 per cent in favor of the complete services of the National Safety Council's Motor Transportation Bureau. Our top drivers are all NSC Safe Driver Award winners. We use the key chain or lapel badge because the temperatures in Phoenix make use of a cap emblem unrealistic.

Our transit system joined the Council in 1936. We began using the NSC Safe Driver Award Plan in 1944. We find that it doesn't cost us anything.

Fleet Memo No. 14 has been our bible. The first year we used the NSC Safe Driver Award Plan, we could have certified 943 out of a possible 963 for awards, but we only issued 626.

With these Safe Driver Awards go cash prizes. We give $25 to holders of our one-year pins, $100 with our three-year awards. I am subject to audit on all awards. Our last audit was made by the safety engineer from the state college. He checked every accident report and every file and gave us a clean slate.

In line with the growth of the Safe Driver Award holders, our accidents have been declining gradually over the years. Since 1945, with the exception of January of this year, each line on our monthly accident graph has shown a reduction.

Last year out-of-list insurance cost us $57,500. Our actual claims were $27,000. Our accidents (including our insurance costs) amounted to a cost of four-tenths of a cent per passenger carried. This saved us $12,000 in 1950, when that amount was taken off the low bid on our 1949 rate.

In previous years we had trouble getting insurance carriers. This year we had eight companies bidding for our business. Insurance companies are not impressed with arguments for or against Safe Driver Award Plans. They know the score on a company's accident record, and, they want no part of a bad risk.

We carry our first-aid costs as part of our public relations program.

All my experience in dealing with personnel and training has convinced me that the National Safety Council Safe

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HOW GOOD IS YOUR WARNING EQUIPMENT?

By
Clifford E. Peterson
Commissioner, California Highway Patrol

IN California, and probably many other states, emergency vehicles do not receive the right-of-way due them on emergency calls. Accidents and near-accidents to these vehicles in recent years have focused attention on this problem and emphasized the need for a satisfactory solution. The lack of right-of-way apparently is due to two things—driver indifference and inadequate warning devices.

A driver is indifferent to the movement of these vehicles in many cases because he becomes accustomed to being in situations on streets and at intersections where other drivers seemingly take no notice of approaching emergency vehicles. If no one else gives way, why should he? This attitude is probably partly developed as a result of his being usually spotted in a position where there is no place to move to the side of the roadway, as on multi-lane highways under heavy traffic conditions or on narrow streets.

Many times the emergency vehicle has already passed his car before he noticed its presence and had time to make up his mind what to do. After a few of these experiences the average driver believes he is not really expected to yield right-of-way. He sees little being done to enforce this section of the law, and seldom receives enough warning to give him time to move over.

The problem of driver indifference would be greatly reduced if warning devices were employed which were more adequate. Even the most apathetic individual would be tempted to move over if there were a searchlight beaming in his mirror and a locomotive whistle breathing down his neck. The major difficulty is due to the fact that the sound of today's sirens and the light from most warning lamps do not carry far enough to be effective at present day vehicle speeds.

The Highway Patrol has endeavored to improve conditions in California as much as possible under the present law and with the warning equipment now in the market. The CHP has for many years been charged with the approval of sirens for use on emergency vehicles and has exercised some control over the placement of warning lamps on those authorized emergency vehicles requiring permits. A great deal of valuable information has been acquired during the testing of these sirens prior to approval or rejection.

A number of years ago, arrangements were made to conduct a series of tests to determine the effectiveness of sirens then in service. A sound level meter was purchased, and the sound output of several makes and sizes of sirens was measured under standard conditions. Readings were also taken of the noise levels inside passenger cars traveling at moderate speeds, and, as a result, minimum sound output specifications were proposed.

On the basis of these tests, sirens submitted by the manufacturers were either approved as Class I or Class II, or disapproved as being entirely inadequate. Class I sirens, having an output of 95 decibels under test conditions, are permitted to be mounted under the hood of the vehicle, and Class II sirens, with 85 decibels or more, must be mounted on the exterior of the vehicle. Many of those tested failed to meet even the minimum requirements for a Class II siren.

(Information on these tests is available. Address the author, at Sacramento, Calif.)

It was found during the tests that power requirements varied greatly among different sirens having the same range of output. This is an important factor to consider, for a vehicle making

long runs at night can incur only a certain amount of drain on the battery before headlamps and warning lamps go dim. As an example of the above differences, one siren with a maximum output of 95 decibels under test conditions was found to draw 178 amperes running current, while another siren with a maximum output of 97 decibels drew only 80 amperes. Both satisfied the sound requirements and were approved as Class I sirens. The decision as to which of these sirens to purchase is left to the owner of the emergency vehicle.

More recent tests, supplementing those made previously, have been conducted to determine the audibility of approved sirens above the noise inside new passenger vehicles traveling at maximum legal speeds. Cars with a driver and one passenger were operated on a paved highway in open country at a constant speed. During each test a patrol car approached the leading vehicle slowly from the rear with its siren operating, and the approximate distance between the two cars at which the siren was first heard was determined.

With a Class I Siren mounted on the exterior of the following vehicle, the cars had closed to within 100 feet of each other before the siren was barely audible in the leading vehicle. Class I sirens mounted under the hood or sideways behind the grille of the trailing vehicle did not provide a signal considered to be adequate until the vehicles were approximately three car lengths apart. Sound measurements also indicated that a good Class II siren mounted on the exterior of a vehicle is more efficient than a Class I siren mounted under the hood, as the same or greater sound output can be obtained with less current drain.

It must be remembered, in evaluating these tests, that the front side windows of the vehicles were open, and the observers were listening for the sound of the siren. Under normal conditions the driver would not be continuously on the alert for a siren and might be listening to the radio or engaged in conversations with a passenger. On an open highway many drivers, heavy truck operators in particular, would not be able to hear the siren of a fast approaching emergency vehicle until it was already alongside. The sudden blast of a siren is very disturbing when it is unexpected, and some drivers would not recover from the shock for many seconds, during which time their actions might be inadequate for the situation.

In a city the conditions are somewhat different, as the speeds are generally slower, and the buildings tend to confine the sound to the immediate path of the vehicle. Drivers on cross street, still may not be adequately warned, however, as they must depend on the siren alone for an indication of the approach of an emergency vehicle, and it is sometimes difficult to tell exactly from which direction the sound is coming. The same buildings that amplify the sound in the path of the vehicle also block it off from side streets.

It seems that most drivers do not encounter emergency vehicles frequently enough to know immediately just what action to take at the instant they hear a siren or see a red light. If they had ample warning allowing them extra time to get over the first surprise, they would be prepared to yield the right-of-way before the emergency vehicle was upon them. Until a more satisfactory warning device is developed, the operator of an emergency vehicle must realize he has to exercise extreme caution due to his inability to forewarn others of his rapid approach.

Warning lamps, as well as sirens, are in need of improvement in many ways. For instance, red lights on California Highway Patrol cars years ago were mounted up front above the bumper where fog lamps are now located on vehicles. Later, these lamps were replaced with red spot lamps mounted through the corner posts. These locations were found to be unsatisfactory for warning other traffic when a patrol car was stopped on the highway, for too many accidents were happening to other vehicles suddenly coming upon the scene of a night accident under investigation by the Patrol.

To help remedy the situation, red lamps were mounted on the rear in various locations such as on the left fender or inside the rear window. Some of these worked fairly well to warn other traffic, but in many cases the first cars at the scene of an accident would stop in time only to be struck from behind a short while later by another car. The first drivers could see the red light and slow down in time, but their cars would block off the warning lamp, and drivers several hundred yards behind were no better warned than before. The warning lamps, in order to be effective, had to be mounted above the level of the tops of intervening vehicles. As a result, all new CHP cars are now being equipped with warning lamps mounted above the roof, one on each side in the front, and one above the rear window.

In looking over the whole picture of warning devices it seems that the ratio of expense of sirens to that of red lights is altogether out of proportion to the effectiveness of each device. As long as your view is not blocked, you can see a red light a much greater distance than you can hope to hear a siren. Just being able to see a red light, however, is not enough. An ordinary warning light can be seen a very long distance if you are looking for it, but the driver with worries on his mind and his attention centered on the immediate problem of driving in heavy traffic will not see the light until it is as close as the nearby cars he has his eyes on. Warning lamps must be good enough to attract every driver's attention to them while the emergency vehicle is still far enough away for the drivers to take command of the situation and move out of the way.

Out on the open highway where sirens are of less value at high speeds, the necessity of having good warning lamps becomes increasingly important. Red lights must be bright enough to be effective at long distances even in direct sunlight, for emergency calls are not confined to nighttime only. The aim of lamps is also important, as a hot spot pointing at the sky or the ground is of little use. It must be shined where it will do the most good —right in the eyes of the indifferent driver.

Flashing and oscillating lamps appear to be much more effective as warning devices than constant burning lights as the eye is attracted more to objects in motion than to things which are unchanging. There are so many red lights on streets and highways that steady lights on emergency vehicles tend to become lost among the other lights along the roadway. For warning lamps to be seen and readily understood under all conditions, the factors of color, brightness, aim, location, and motion, which distinguish them from other lights, must all be taken into account and used to the best advantage with the equipment available.

how OPERATION SAFETY supports engineering

By Harry E. Neal

Chief Engineer, Division of Traffic and Safety, Ohio Department of Highways

INFORMED public opinion is a vital ingredient of any traffic safety program. Without it the engineers, as well as the police, motor vehicle administrators, educators and other responsible official agencies, are deprived of a most potent force. Once the public knows not alone *what* the engineers are doing but *why* they are doing it, the task of applying engineering methods to the discovery and solution of traffic problems is simplified.

The people must know to understand. That is why Operation Safety not only can but also is doing, in an ever-increasing degree, an effective job in support of engineering.

The Operation Safety monthly theme program for continuing safety education in states and communities concentrated in August, for example, on the signs that point the way to safe driving and walking. This Signs of Life program included not only street and highway signs but also pavement markings and traffic signals—all the warning and regulatory guides designed by the engineers to expedite and control traffic. The objective was to get motorists to recognize the basic sign shapes and to develop in both drivers and pedestrians a habitually conscientious obedience to traffic laws and traffic safety rules.

Because it features a monthly theme for promoting traffic safety, Operation Safety offers an ideal vehicle for creating support for engineering and the other factors, including enforcement, that are necessary for a balanced program of motor vehicle accident prevention. The different monthly themes fit in with the fact that there are different causes of accidents. Haste, liquor, ignorance, chance-taking, defects of mind and body, defects of the highway and of the vehicle—all play their part.

Abstract of address before Group Session for Public Safety Education, 38th National Safety Congress, Chicago.

And there is *no one remedy* for all these causes. The year-round educational program carried on by Operation Safety will not by itself solve the traffic accident problem. And, of course, no claim is made that it can. But Operation Safety does provide a bridge for the close and inter-dependant relationship among education, engineering and enforcement in motor vehicle accident prevention.

No one can say which of the three —engineering, education and enforcement—is most important. The relative merits of each has been discussed many, many times. The prevailing view is that none of the three or any two of them can stand alone in the achievement of maximum results in the safe use of the streets and highways.

Some cities and states have made the mistake of spending liberally for improved highways but neglecting to educate people in the need of safe driving. Some do much education, warning and threatening with plenty of "don'ts" but overlook the danger spots that trap unwary drivers. Some have fine engineering and safety education but no enforcement and this leads to contempt for safety planning and reckless drivers gain control, negating the other investments.

Thus, like a three-legged stool that falls when one leg breaks down, the well-balanced program requires education to teach the public how to protect itself, enforcement to curb reckless drivers who are a public menace, and engineering to make safe driving easy.

As an engineer, I am aware that the primary function of a highway transportation system is to move people and merchandise safely and expeditiously. This function is essential to the orderly development of the country and vitally important to business and society. Accordingly, a successful safety plan is one that not only helps to reduce accidents but also helps to facilitate the movement of traffic and thereby increases the utility and efficiency of the roadway.

Education, enforcement, motor vehicle administration and driver training—all embraced in the Operation Safety program—are needed to promote traffic safety. Educators try to teach motorists how to drive more skillfully; police and motor vehicle administrators strive to make the motorists drive lawfully—with caution and with due regard for the rights of others on the highways. On the other hand, highway engineers are attempting to design highway and traffic control equipment which will require a minimum of education and enforcement.

Just what, you may ask, is the engineering factor or function in connection with traffic safety?

In a narrow sense, engineering has to do with physical or material things. And it is not so long ago that some highway engineers did take this narrow view of their job. They felt it was no concern of theirs what might happen to the car, the driver and the pedestrian on the roads which they were charged to build and maintain.

This limited view, however, is no longer fashionable. The engineers who build and maintain the roads have come to realize that they have a vital interest in traffic accidents. For accidents constitute an index of inefficiencies in the processes of transportation. These inefficiencies are not only costly in terms of human values but are also costly in terms of economics. Thus accidents serve as a tremendous stimulus to discover and analyze the causes of these inefficiencies.

It is the job of the engineer to build safety into streets and highways to the best of his knowledge, with such money as the public is willing to provide. In the case of existing roads and streets, it is the job of engineering to correct deficiencies where possible and to provide needed controls.

Obviously, with the millions of cars which are now using the available roads—good, bad and indifferent—there can be no immediate, wholesale revision of the road system to revamp it completely for traffic needs. This transition must be gradual and in accordance with a progressive policy.

Either we must have highways which are safe for the uses to which they are applied or we must adapt the uses to the roads which we have. The engineer's job is a combination of these alternatives. He must adapt the traffic to the present highways by regulations, restrictions, warning signs, signals, safeguards and other measures, ever looking for opportunities to improve the adaptation of the highway to the traffic needs.

It has been said with pardonable facetiousness that "the chief drawback of present-day roads is that they do not wear out fast enough." For the average life of a surfaced roadway is roughly three times that of an automobile. This ratio—desirable as it is from the standpoint of economy—is at the bottom of the engineer's problem. Roads designed to fit the needs of vehicles as they were 15 or 20 years ago can scarcely be expected to carry today's much speedier traffic with complete safety.

On such roads it will require careful study and treatment of specific locations, potentially and actually hazardous from the standpoint of modern operating practices, with the application of corrective measures and the use, based on factual studies, of traffic control devices.

What can we reasonably predict as to the future construction and remodeling of our highways? The greatest amount of effort in the future, as in the past, will of necessity be spent on the familiar two-lane road. But it will be necessary to convert many of our most heavily traveled routes into superhighways of limited access, especially in and near large metropolitan centers of population.

Mention of superhighways and limited ways usually arouses a certain amount of consternation and misconception as to real purpose. People rise in wrath and say there is a plot under way to put emphasis on speed, speed, speed.

As a matter of fact, what leaders in the highway safety movement want is safety at 50 miles per hour, not enlarged opportunities for 80- and 90-mile-per-hour drivers. Few people are competent, physiologically or psychologically, to drive often or far at 90

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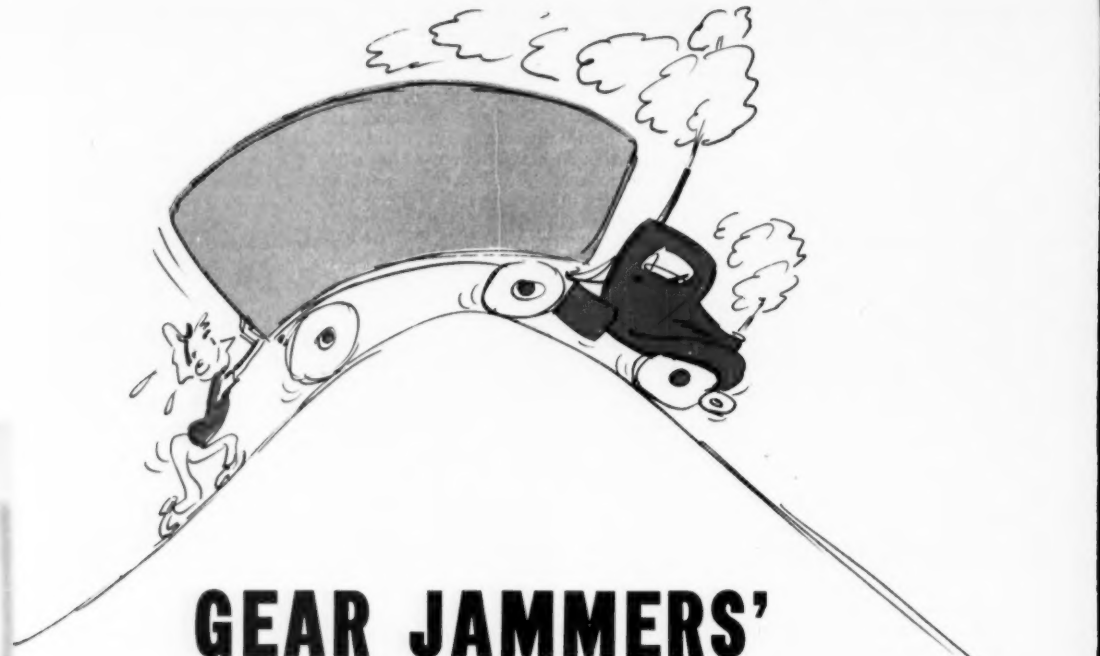
Booklet helps Alabama police back up State's engineering program.



GEAR JAMMERS' Jargon

"MAN! Pushing that peanut wagon on the hills is like trying to drive a pile with a tack hammer. When you set to gear down and get into the kitchen, it's like taking off in a 9-G power dive. But it's either that or the cinchers on the rig go smoking before you know it and then you're really whistling. Some day some dock walloper is going to drop too much heavy stuff on the front end of that semi and we'll all go yodeling down the mountains riding the dollies. You can't win, the peanut wagons get you coming and going!" The speaker is a truck driver at any coffee stop in America.

"Gear jammers riding the kidney busters, jockeys doging in the big hills, skinners bulling a bucket of bolts, or a cowboy kanoodling a corn binder down these chutes—especially on a day for the rinky-dinkers, cause most of the trouble. But it's no skin off my nose. What with the old man giving with the guff on safety, the big brain giving the goose to the boys who don't highball, and the snafu PM—where we get the old flash double-O from the grease monkeys and pit rats in five seconds flat, it's a wonder we all haven't tangled tocuses with the old gent with the reaper. For my part, I'd rather bull a boom wagon for MacArthur or chauffeur a cackle crate out of Jersey than stay plain cold with this bedsteading bunch."

Of course none of this makes any sense unless you're a fleet operator—driving the big rigs cross-country, the pick-up and delivery trucks, intercity buses or transit jobs. Then you savvy the coffee stop jargon, because driving is in your blood and the slang is full-bodied and satisfying like the thick steaks, the strong coffee and the man-sized talk of the men who move the loads across the nation.

For the benefit of folks who haven't frequented the coffee stops and to whom this talk is gibberish, let's restate this mythical conversation between truck drivers.

One truck driver was complaining to another that he had too small a tractor to pull his large semi-trailer. The small tractor is a "peanut wagon" to the trade. When he tried to gear down into lowest gear on a particularly rough down grade, the big semi-trailer pushed the tractor along somewhat like a plane doing a testing dive to nine times gravity—one of the specifications in testing planes. If he used his brakes ("Cinchers" to the trucking fraternity), they got so hot they smoked, and he found himself going far too fast ("whistling" is the noise the high gear makes when a job is really rolling) downhill. And—someday, concluded the trucker—some freight handler is going to pile freight heavy in the front end of the semi-trailer, and we will all go downgrade in high gear with the semi-trailer riding on the small wheels called "dollies," or "landing gear," which are cranked down when the "semi" is parked dock-side.

Of course a "gear jammer" is a trucker and a "kidney buster" is a tractor with extra heavy strong rear springs to support heavy semi-trailers. "Jockey" is the name for a bus driver and when "jockeys" go "doging," it means they are following too closely. A "bucket of bolts" is a worn-out bus or truck. "Skinner" is a throwback adjective to the days of the mule trains and indicates a profane driver—usually a somewhat reckless one, especially if he's "bulling," or throwing his weight around on the road.

A "cowboy" is a rough character—semi-smart—who speeds or otherwise disregards the rules. And when a "cowboy kanoodles a corn binder down the chutes," you have a screwball character speeding down grade, riding all over the road in a tractor powered by an International engine. If it had been an "all shot job," they would have been talking about the Hall-Scott motor. A "twistor," or an "asphalt stick," would have designated a diesel job. Simple, isn't it? "Rinkey-dinkers" is jargon for "gypsies," the wildcat highway haulers, or it could mean a second-grade operation of any nature.

When the "big brain" gives the "goose" to the boys who don't "high-ball," the superintendent is penalizing operators who prefer to play it safe, while at the same time the general manager is issuing new sets of safe driving rules or addressing drivers at the terminals with pleas for accident-free operation.

The "snafu PM" is a gripe against poor preventive maintenance in which the "pit rats" (mechanics who work in inspection pits) and "grease monkeys" (mechanics and other garage help) give the "old flash double-O" (another name for quick once-over) in five seconds flat. The driver naturally wonders why they haven't all tangled with the grim Reaper long since, and figures he might have a better chance to live if he were driving a truck load of ammunition on the front line in wartime, or a poultry truck to a New York terminal (one of the runs sure to give the driver plenty of traffic with which to contend).

Staying "plain cold" with this "bedsteading" bunch means that under all these conditions, the driver has been forced to run behind schedule—probably far into the night—while the rest of the truckers on the company payroll refused to drive at night because they grew sleepy easily, thereby making two day's work out of every run.

The trucker takes out his gripe at the coffee stops, oases by night and day for the drivers of the big rigs. The business of piloting truck or bus cross-country attracts men with a bit of the pioneering spirit. They are free spirits — rugged individualists who have withal a strong feeling about law observance. Many of their characteristics seem contradictory, but when you put them all together you have a man with a sense of professional competence in his trade, an urge to be considered tops among drivers and a distaste for accidents or other evidences of sloppy performance. You can't talk to him out of both sides of your mouth, for this man will judge you by precept and example and, if they don't square with each other, you're a "phony" in his book.

His language is colorful. Our advertising experts tell us that salesmanship is subtle stuff and that one of the cardinal rules in selling is to speak the language of the buyer. Truck drivers literally "buy" accident prevention information, since they have to be sold on any program before they will go all-out for it. It would seem important then that we try to understand what makes them tick and an understanding of trucker's jargon is one step in that direction.

A driver calls his combination of tractor and semi-trailer, trailer, or both, a "rig." A trailer has wheels on both ends and is pulled by a tongue. The semi-trailer has wheels at one end and rides on what is known as a "fifth wheel"—the coupler which is located back of the cab and just slightly in front of the rear axle of the tractor. A narrow tread four-wheel trailer is a "pup." A trucker who hauls livestock is called a "bull hauler," and any tractor with a sleeper cab is called a "pajama wagon." A "run" is a day's work, the "dick," "sneak," or "peeper" refers to the tachometer or trip record recorded on a disc in a sealed instrument. "Growler," or "creeper" gear is lowest gear, and the "Brown-Lipe" is the special gear truckers must learn to use synchronously with the regulation shift in the

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Chief of Police L. J. Campbell, Columbia, South Carolina, Police Department.

The author is captain, commanding traffic, Columbia (S. C.) Police Department.

OPERATION 30

By B. F. Pruitt

Commander, Traffic Division
Police Department, Columbia, S. C.

JUST a year ago, civic groups and traffic police in Columbia, South Carolina, ushered 1950 in with a "30-" day safe driving program sponsored by the Columbia Junior Chamber of Commerce and titled: "Operation 30."

The program urged Columbia motorists to drive carefully and safely five miles under the posted speed limits—30 miles an hour in 35 m.p.h. residential zones, and 20 miles an hour in the 25 m.p.h. business section. "Save 5—stay alive," said the JayCee sponsors of the drive.

The Operation 30 plan was citywide and intended to impress the motorist and pedestrian alike with the importance of traffic safety. The new program began on New Year's day and continued for 30 days with 30 daily winners picked by Columbia traffic police for safe driving.

More than 30,000 Operation 30 stickers were given out during the month-long campaign. The Junior Chamber of Commerce sponsors originally planned for 10,000 but demand far exceeded the original supply and public backing trebled the original order. The stickers were affixed in the lower right rear corner of the rear window of passenger cars, where they would not interfere with vision, yet would identify the car as participating and thus eligible for the daily and grand award prizes if selected by police.

The Operation 30 Safety program proved to be an ideal local traffic safety promotion. Intended to usher in the New Year traffic safetywise, it held for Columbia citizens the essentials of good theater, sound public relations, education for citizenship, and cooperative effort by public groups and government officials — all desirable components of a sound traffic safety program. It was not intended to either displace or replace the Operation Safety program of the National Safety Council, but rather to launch a year-long, balanced program of education, enforcement and engineering as recommended by the Action Program of the Presidents Highway Safety Conference.

The JayCees (members of the Junior Chamber of Commerce) conceived the idea, and President Frank Harden and Safety Chairman Robert H. Harleston, Jr. sold it to their own organization and promoted the prizes to be awarded by the group to winners picked by the Traffic Division of the Columbia Police Department.

Lt. Cal Hembree, of the Traffic Division, was *liaison* officer with the civic groups. The State Highway Department cooperated with the Columbia program and Chief State Highway Commissioner Claude McMillan and his assistants took advantage of every opportunity to boost the campaign.

Even the youngsters got into the act. A jingle writing contest was staged in conjunction with the Operation 30 program for any school child in the Columbia area. Youngsters jotted down their jingles daily and won theater tickets for their best daily efforts. In the giant jackpot at the close of the program, bicycles were awarded to the top boy and top girl contestants.

Winners of daily prizes in the program were recipients of a letter written by Chairman Harleston, Jr., of the JayCee sponsoring committee. Here is one sample:

"I want to take this opportunity to express my sincere congratulations to you on being chosen as the safe driver

of the day. If more drivers would use the safe driving habits that won you this honor, the streets and highways of these United States would be much safer and the 100 Americans that are killed each day need not die.

"Enclosed you will find tickets for the daily prize which you have won. Your name will be among these 30 names from which a Jack-Pot winner will be drawn at the regular luncheon meeting of the Junior Chamber of Commerce at the Wade-Hampton Hotel, February 1st. You are cordially invited to attend the luncheon and drawing of the Jack-Pot Winner.

"With sincere congratulations, I am
"Safely yours."

Public information media went all-out to keep Columbia folk informed on the traffic situation locally as well as in promoting the Operation 30 program itself. *The Columbia Record*, our afternoon daily, and the morning *State* carried columns of copy with banner headline stories and front-page features pushing the campaign. Editorials also aided police and the civic groups engaged in this cooperative effort. Photos of the daily winners rated top editorial space and local human interest so vital to the success of any program. As an example: The Columbia papers carried a banner story New Year's day with a 3-column picture showing Columbia's then Mayor Frank C. Owens placing an Operation 30 sticker on the lower right hand corner of the rear window of his car, to become the first citizen in Columbia to sign up for the program.

The radio stations, likewise, went all the way in backing our program. Local officials can recall no other similar drive that brought such whole-hearted support. Final tabulations on radio coverage show that among the four Columbia, S. C., radio stations, 636 teaser announcements were broadcast in two days leading into the campaign; 252 news releases on radio news broadcasts during the month, 1,200 spot announcements during the program; 20 appearances by JayCees and traffic safety officials on various programs, while "Orchids for Safety," weekly safety program on WIS was given over to the campaign all-through January as well as the sidewalk safety interviews on WCCS all month. In addition, the JayCee's weekly safety program was devoted to the Operation 30 program all month. As a climax, recordings were made at the final Operation 30 luncheon meeting, with interviews with the grand award safety winner and distinguished guests.

"Signs of Life" came in for some extra heavy educational promotion during the month of January in South Carolina's capital city.

A small boy and a bike are a magical combination especially when the boy wins the bike for his knowledge of rules of the road and an ability to set them in rhyme. Here Lt. Cal Embree presents happy winner with his new bike.

Columbia traffic police got a big kick out of picking safe drivers. I know because I helped select some of them, and we watched drivers carefully before making any kind of choice. Most of the time we are forced to give tickets to those who will not abide by the rules of the road—the violators of our traffic ordinances. Despite the fact that only the flagrant violators are thus apprehended, police do not enjoy issuing traffic tickets; instead, they wish sometimes that they could reward the good drivers who certainly are in the majority.

Columbia's Operation 30 program gave us this opportunity. The prizes were nice, too, but as the JayCees urged, it's not so much the prize that the drivers apparently were after, but the principle behind the whole program. January is usually our roughest month in terms of the number of accidents. This is due to a combination of circumstances centering mainly on the weather.

Our 1950 program lined up the motorists, police, Junior Chamber of Commerce members and most of our civic clubs, and the effects of the campaign were widespread and lasting. We have launched a similar program this January and we will tie it in with other campaigns throughout 1951.

One instance of how our Operation 30 campaign sparked interest in the subject of safety was the job done by Columbia theaters. Each of our five movie houses showed a two-minute safety trailer tied in to the Operation 30 program at every showing. As a

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How Operation Safety Supports Engineering

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miles per hour and studies in various states have shown that at present only a small percentage drive as fast or faster than 50 miles per hour.

But highways must be built to be safe at higher speeds in order to be fully safe at lower speeds. Railroads are built to carry trains at 100 miles per hour and more. But no trains are operated continuously at that rate.

Speed in relation to safety is a complex subject. Generally speaking, speed does not seem to be a primary factor in a large number of accidents but it does greatly increase their intensity.

Speed, after all, is relative. A road that would be safe at 40 or 50 miles per hour under ideal conditions might be unsafe at ten miles per hour on a foggy night. There is no such thing as a "safe speed" for all conditions of weather, car, driver, time of day, conditions of traffic and so on.

The movement and control of traffic is a matter of serious concern to the highway engineer. And the problems of the future, though remarkably like those of the past, promise to be complicated by a far more intensive use of motor transport than has yet been seen.

In any program of traffic safety, whether on the state, county or community level, the engineer must have an important part. Otherwise the program will be unbalanced. Enforcement and education cannot achieve optimum effectiveness unless counterbalanced with the results that engineering alone can bring. And for this reason: Through enforcement we may force the users of the highways to act safer and through education we can teach them how to use our streets and highways more safely but only through engineering can we make the roads and conditions safer for the people.

Engineering, however, must be sold in much the same manner as any other product is sold. This matter of selling engineering to the public is, in my opinion, the greatest single thing that Operation Safety can do in support of engineering. The problems of highway engineering—highway planning and design, and operation control through traffic regulation and traffic control devices — cannot be isolated from the problems of influencing public opinion and legislation. For in the final analysis what is done to improve traffic conditions stems from public psychology and desire.

Operation Safety, by its inclusion of Signs of Life in its monthly themes, is helping to demonstrate what the product of the engineer will do for the consumer, i.e., the motoring public. Operation Safety can go further than this in support of engineering. It can include mention of engineering and its benefits—which are, after all, necessary to control bad driving—in the promotional activities for some of the other monthly themes—which are also aimed at controlling bad driving.

In this way Operation Safety can really support engineering to do the best job of building safety into the streets and highways.

Head Star - studded Committee

PHIL HARRIS is the new chairman of the Motion Picture and Radio Committee of the National Safety Council, and Gloria DeHaven is the new vice-chairman. They are shown here in the midst of activities typical of the public service they and the 100 other motion picture and radio stars contribute as members of the committee. They are studying the script for a coast-to-coast broadcast, "The Green Cross Parade of Stars," which was carried by the Mutual Broadcasting System and the Don Lee network November 24. Mr. Harris succeeds Jack Carson as chairman of the committee and Miss DeHaven succeeds Alice Faye as vice-chairman. Don McNeill, of "Breakfast Club" fame, also is a vice-chairman, and Jackie Kelk is junior chairman.

* * *

The bureaucrat was asked by the department manager for approval of the DP's request that all correspondence more than six years old be destroyed. "We need the file space," explained the manager. "Certainly, by all means," said the bureaucrat, "But be sure to make copies of everything."

* * *

A good deal of time is wasted by the electorate in wondering just where newly-elected Congressmen will stand when they take their seats.

GREEN CROSS News

by TOM A. BURKE

NINETEEN Safety Council and Chapter managers are listed on the 1951 Public Safety Education committee of the National Safety Council. Dan Hollingsworth, of the Oklahoma City Safety Council, is chairman of the newly organized group. The managers listed on the new roster are: J. James Ashton, Delaware Safety Council; George M. Burns, Kansas City Safety Council; Dr. B. L. Corbett, Milwaukee Safety Commission; Irving L. Denton, Fort Wayne, Safety Council, C. of C.; Charles E. Doerler, Caddo-Bossier Safety Council, Shreveport, La.; Paul W. Goss, Dayton Safety Council; Estel Hack, Louisville Safety Council; Robert J. Hassett, Des Moines Safety Council; David Kaye, Spokane Safety Council; Walter D. Ladd, St. Joseph (Mo.) Safety Council; Robert B. Leopold, Greater Atlanta Safety Council; Harold F. Lillie, Lansing Safety Council; Nolen Puckett, Tennessee State Safety Council; William M. Rogers, Berkshire County Safety Council; Edwin S. Smith, Rochester Safety Council, and, James Plaskett, Vancouver Traffic and Safety Council.

Bob Shinn of the National Safety Council staff, in charge of the "Operation Safety" project, is secretary of the committee, which has a total membership of 61.

San Antonio School

During the past six months the San Antonio Police Department, in cooperation with the San Antonio Safety Council, has been conducting, under the leadership of Officer Bob Cruz, a type of driver license school that has been needed for many years. A difficult problem exists in San Antonio involving citizens who neither read nor write Spanish, and those who neither read nor write English, yet who have to drive cars and trucks in order to make a living. The first class in June gave eight hours of instruction in both English and Spanish, in safety and driving regulations, designed to prepare for the driver license tests required by the State. At the completion of six months of classes a total enrollment of 2,441 had attended the courses. More than 80 per cent have completed the classes and successfully passed their license examination.

Driver Training Program

The fruition of more than ten years' advocacy of driver training for Philadelphia High Schools, was realized on October 24 by the Philadelphia Safety Council. Council Manager Walter W. Matthews was chosen to make the opening address at ceremonies at the Board of Education Building, when ten new automobiles, equipped with dual controls, were presented by the Philadelphia Automobile Trade Association. L. B. F. Raycroft, chairman of the Safety Council's board of governors, was a featured speaker at the presentation ceremony.

Western States Conference

A joint meeting of the Utah Safety Council, the Governor's Traffic Safety Coordinating Committee and officers of the 13th Annual Western States Safety Conference was held in the Governor's Board Room, State Capitol Building, Salt Lake City, on November 29, in connection with the forthcoming 13th Annual Conference to be held in Salt Lake City June 21, 22, 23, 1951. Jack Coombs, manager of the convention, reported that most of the committees have been appointed and that nationally known speakers would participate. An exhibit is planned.

Sky-High Safety Survey

FLEET leaders in the Los Angeles area got a bird's-eye view of tangled traffic and a look at the opposite—the fluid movement of the same traffic over new freeways, when the Fleet Transportation Division of the Los Angeles Chapter, NSC took to the skyways to study moving traffic from the air. Shown above are about half of the flight members. A total of 80 members and guests made the aerial observation tour in a Western Airlines Convair.

"Operation Night-Wise"

A recent project of the Pasadena Chapter, N.S.C., was built around the "wise old owl" theme. Several thousand decals showing a cartooned owl in college graduate garb, wearing a mortarboard and carrying a diploma bearing the words "Night-Wise Driver" were given to all motorists who had their headlights checked during the month and who had signed a safe night driving pledge. The Pasadena Rotary Club sponsored the campaign as one of the "Operation Safety" programs. Posters treated with fluorescent materials attracted favorable attention.

Ordinance Survey

A comparative survey of the traffic ordinances in Hamilton, Ohio, will soon be made by the Automotive Safety Foundation at the request of Mayor William Beckett, City Manager Charles F. Schwalm and a group of city officials working with the Hamilton Safety Council. The study will be completed during the next three months.

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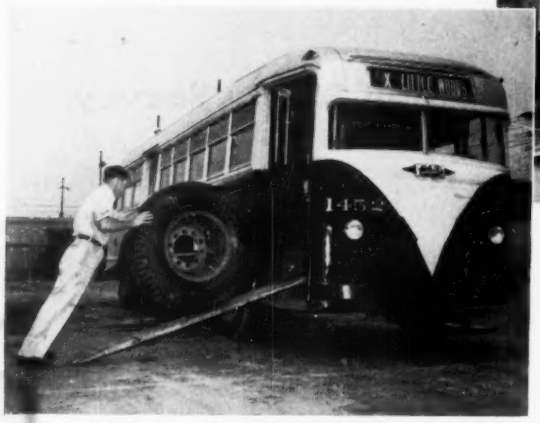
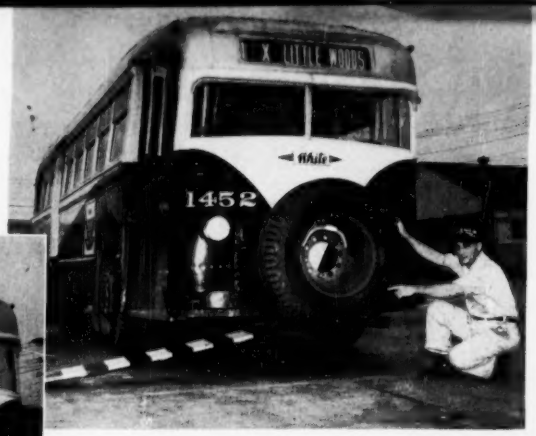
Below: When a front tire on a bus goes flat on the road, it is often customary to carry a replacement tire to the disabled bus in another bus. Bus tires are heavy and require considerable effort to roll them onto a bus.

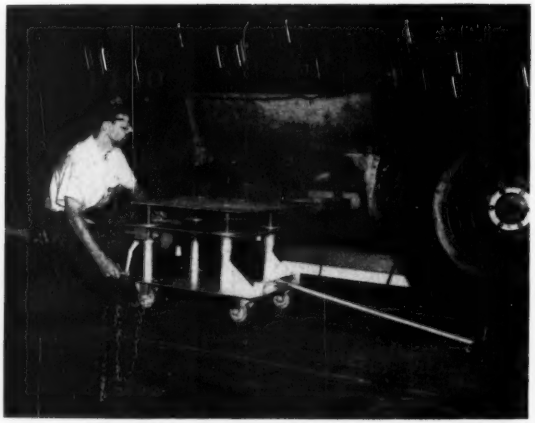




Above: One solution to this problem is to use a low level carrier rack attached to the front bumper of a bus. The two photographs contrast the effort required to roll the same tire inside a bus and onto the carrier rack.

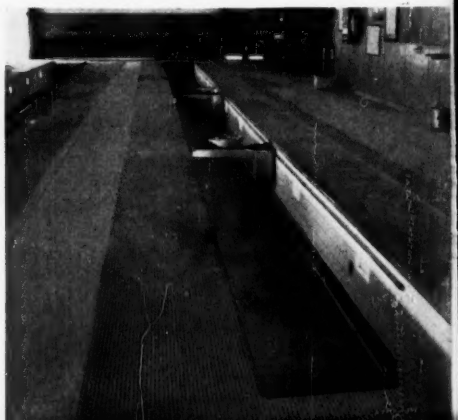
lagniappe' NEW O

IN CASE you've never heard it before, *lagnia* is a word of Creole origin (French-Spanish) the extra something which Louisiana customers expect from tradesmen. It's the 13th sugar bun dozen. In the case of the New Orleans Publi pany Inc., it means SAFETY round-the-clock of the company operations.



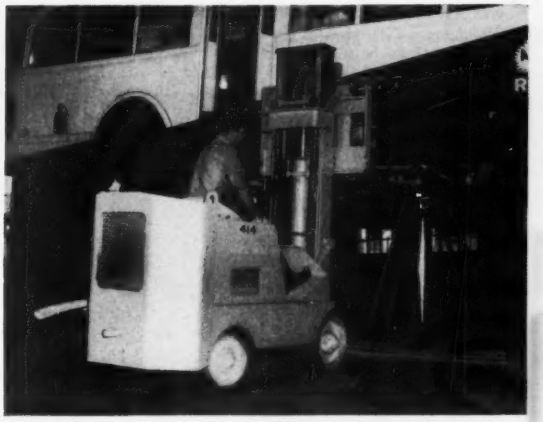
Bus batteries are heavy. Handling them is greatly facilitated through the use of this adjustable height dolly. Note use of approved safety eye shields—a NOPSI must on this operation.

It is easy to maintain good housekeeping in a grease pit as well constructed as this one. The white ceramic tile walls and tile floor are easy to keep clean. Old oil from engine crankcases is drained into movable pans which empty into a wall tank. Note non-skid floor plates.



s service aisles shown below are protected with water fog which really works. Note floor nozzles for extinguishing fires uses. Also note safety caution stenciled on vertical lift doors.

To handle underfloor bus engines safely calls for the use of sturdy material handling equipment suitable for the purpose. The fork lift truck is painted traffic yellow.



LEANS STYLE

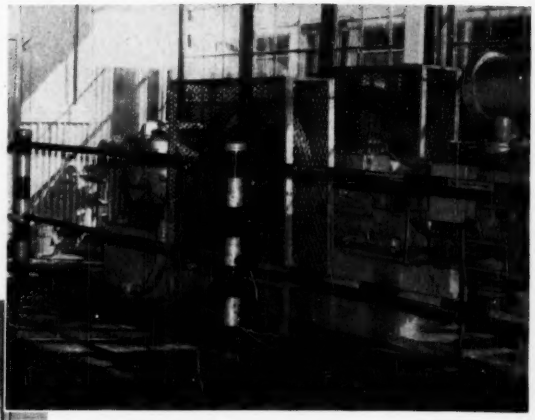
(lan-yap') refers to come to he baker's vice Com- ery phase

Above: Oil change sans muss. Old oil is discharged into a traveling conveyor type of drain funnel and then into a wall tank. Note miner's safety cap on worker.

The hydraulic system on pit hoists is not likely to fail suddenly, but just in case such a failure should occur, the safety posts are in place to protect employees working uder buses.

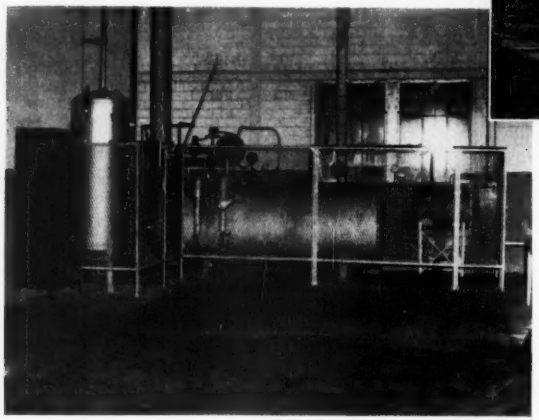
Turn Page

Lagniappe' NEW ORLEANS STYLE



Above: V-Belt drives on air compressors are bone breakers. Mechanical guards around such moving parts do prevent many accidental injuries by making it difficult for anyone to get within the danger zone. Movable guards are interlocked.

Below: Since the guards shown around this boiler do not extend all the way to the floor, it is easy to keep the floor clean within the enclosed area.



Bus garage machinists and motor mechanics work to exacting measurements. Their work area requires a high intensity of high quality lighting. Floor and wall surfaces should not be light absorbing. All these desirable features are shown above. Note comfort floor mats and lack of belts and pulleys. Plenty of elbow room here.

There is no need to overburden the atmosphere in garages with engine exhaust fumes. A flexible hose connecting bus tailpipe to a suction exhaust system beneath garage floor is one solution of the problem of how to get rid of such unwanted fumes.

JACK TARVER

They Won't Be Home for Christmas

Four Atlanta motorists were given 30-day jail sentences for drunken driving yesterday.

That's one way to alleviate the city's traffic problems.

Henceforth, according to Traffic Judge Luke Arnold, motorists who spend too much time in front of bars are going to spend more time behind them.

He has amended the old nursery rhyme to: "Thirty days hath September, April, June and those occupying the driver's seat while intoxicated."

That ought to be the most effective sobering influence since the lion escaped from the Bijou.

You've heard of judges "throwing the book" at defendants? Well, Luke is tossing the library.

The Judge's get-tough policy is a timely one, what with a lot of people already dreaming of a tight Christmas.

If he keeps it up, a lot of men of distinction are going to be switching to sarsaparilla.

There's nothing like the threat of a 30-day hangover to quench a thirst.

The editorial column reprinted here is presented through the courtesy of the author, Jack Tarver, and the *Atlanta Constitution*, of which paper he is associate editor. The column was brought to our attention by Rutherford L. Ellis, president of the Greater Atlanta Safety Council—NSC Chapter, and appeared in print prior to the Christmas-New Year holiday season. We hope it had as sobering an effect on Atlanta motorists as it had on us.

Operation 30

From Page 17

result, we had 75 Sunday showings and a total of 520 on weekdays for a grand total of 595 impressions via this medium. And we believe firmly that this educational effort has a lasting effect and is good for every other phase of accident prevention.

Our January program did everything that could be asked of a month-long campaign. It focused interest on the subject of traffic safety in a way which could not be obtained via any other subject or promotion. It enlisted the aid of civic groups and the schools in a rewarding program which had local oomph from a publicity standpoint. Of course, everybody gained in the final analysis, but there were tangible prizes too, and they make for good copy.

The wind-up of our program brought the Governor of South Carolina, J. Strom Thurmond, into the picture as guest at the climax luncheon. With Frank C. Owens, then mayor of Columbia, Chief of Police L. J. Campbell, the author, and Lt. Cal Hembree of the Traffic Division, and the officers and members of the Junior Chamber of Commerce and top officials from other civic clubs, we thus obtained recognition of the genuine cooperative effort which had obtained throughout the 30-day period—a genuine inspiration for traffic police to do a competent job around the clock and throughout the calendar year.

As Thomas F. Maxwell, our new city manager, phrases it: "traffic control and accident prevention provides any city with a continuing problem and a need for a balanced, scientific approach to its solution. In our opinion, there is no substitute for hard work in all phases of the three E's. But when to that is added the punch which can be provided by a local program which proves a "natural," such as Operation 30 proved to Columbia, we don't quibble with results.

Our stepped-up educational program was not conducted at the expense of our regular enforcement activity. It was an added duty, possible for a 30-day span, and it proved effective.

For the first quarter of 1950, Columbia had a no-death record, as compared with two deaths during the same period in the two preceding years. The spell held until April, when the tide changed, but the effectiveness of community promotion for traffic safety was aptly demonstrated and we plan to utilize it more effectively in 1951.

Maybe someday we will make it Operation 365, but until the millenium arrives, we will be satisfied with Operation 30, or a reasonable facsimile.

Safety Courses Offered by New York University

Courses in industrial and traffic safety are announced by the Center for Safety Education, Division of General Education, New York University, for the Spring Term beginning February 5th. The expanded curriculum makes it possible for the students selecting a full program of ten courses to secure either a certificate in industrial safety or in traffic safety.

The following courses will be offered in the Spring Term:

Required Courses: Safety Directors and Safety Engineers — Their Qualifications, Duties, and Responsibilities; Safety Organization: Values and Limitations; Management and Supervision in Accident Prevention; Industrial Hygiene and Occupational Diseases; Fire Prevention and Protection Inspection; Safety Supervision and Management in Commercial Vehicle Fleets.

Elective Course: Special Problems in Accident Prevention.

All courses are given in the evening at the New York University Faculty Club, 22 Washington Square North, New York. For registration information, call SPring 7-2000, Extensions 312 or 632, or write Walter A. Cutler, assistant director, Center for Safety Education, 8 Fifth Avenue, N. Y.

DAFFYNITIONS

Traffic Law Violators: Can be divided into two classes—men and women.

Husband: A man who offers his seat to a lady when he gets off the bus.

Committee: A group of mixed-up people who keep minutes and waste hours.

FLEET NEWS

REFRESHER TRAINING

By Burns M. Franklin
Superintendent of Training, St. Louis Public Service Company

IN any training situation we are attempting to create a change. A change in belief, in behavior, in performance, or a change to bring about conformity to some new situation. To accomplish such changes in workers, we must recognize some factors that are unique about teaching adults.

In an adult situation we must attract and hold the interest of the trainee in the training activity. We cannot rely on the material presented to do this alone but must utilize methods that stimulate interest. Visual material, demonstrations, role playing, and other teaching aids help in developing and holding interest of the trainee.

The adult has a background of experiences against which he can make comparisons. These experiences condition him against new learning situations.

He has also formed specific learning habits that are difficult to tear down. The adult has very definite and positive opinions that influence his mental processes. He has built up prejudices relative to many ideas and facts that limit effective learning and present difficulties in the learning process which are almost unsurmountable. Before learning can be effective, means must be found to break these habits, reform their opinions and alter the prejudices.

Adults have a tendency to determine their own needs. Their pre-formed opinions, prejudices, etc., influence judgment to such an extent that they form false concepts of what their true needs are. This leads them to engage in meaningless educational projects, such as inappropriate extension courses, correspondence courses, etc.

Because of these unique adult tendencies, it is our job as training specialists to determine the needs of the employee and then set up a training program that will meet them. First we must investigate the employee's educational background. This will indicate the method of presentation to be used. After determining the job requirements, the instructional material is formulated so that he will receive information designed to improve his job performance. In industrial training situations, we must not become too academic. We are not attempting to impress the trainee with our mental gymnastics but rather keep our objective uppermost in mind—to create a change in the trainee.

The trainee's emotional maturity must be kept constantly in mind as well as his educational maturity. The learner's emotional maturity definitely influences his acquisition of knowledge.

Changes must occur in his values and his feelings. He must be made to realize the importance or value of the things to be learned. The adult is primarily interested in things that result in some direct benefit to him. It must pay dividends to him. It is a utilitarian attitude. He must feel a need for it, it must indicate it is of value. It must be meaningful material and a meaningful activity.

In the learning process, his method of problem solving and knowing must change. Creative and correct thinking must be the end result. The acquisition of correct knowledge is important and care must be used in the selection of material content. If the teaching is successful it will establish a new pattern of action in the trainee. Adult learning, simply as an end in itself, is not effective.

The success of any training program must ultimately be determined by the pattern of action it secures in the trainee. If he does not respond to the training, as indicated by a noticeable change in his behavior, then the training has failed to reach its objective.

Considering these as basic to our philosophy, we set up the Refresher Training program at Public Service. We arranged to have the operators come in in groups of 15 to 20 men. We believed that by keeping them in groups we could utilize their individual experiences as a motivating device in securing desired attitude changes. Our primary purpose was to get them to understand our philosophy of management and secure a change in their operating performance to conform with management's ideas. The men were paid for the two days spent in the sessions, and provided with their lunch at noontime. They received eight hours pay or what their run paid if it called for more than eight hours.

The days were divided into four sessions. The first half of the first morning covered the topic "Our Job." Here we attempted to get them to understand the company organization and showed them how they fitted into it. Discussion then went into the matter of how they could improve their job performance with emphasis upon how it would affect them. Benefits the company would receive were minimized. We discussed with them the basic principles of good salesmanship. What quality meant to the purchaser, how quality could be given to our product, rides—and how we can sell service.

The second half of the morning covered a discussion of courtesy. We had them point out the things that annoy operators—how passengers agitate operators and its effect upon their operation. Then we turned to the things operators do to annoy passengers. We brought them to the realization that both operators and passengers are people. Our job is to handle people and to handle them properly, we must understand them. If we understand ourselves, we are well on

Digest of an address by Mr. Franklin before the Transit Session, 38th National Safety Congress, Chicago.

our way toward understanding others. The morning session is closed with a showing of the picture "By Jupiter."

The remainder of the day centers around a discussion of our operating rules and practices. The philosophy underlying rules is stressed with emphasis upon operator relations with supervisory personnel. We want them to understand completely our ideas of supervision, such as handling discipline, accident responsibility, rule infractions, passenger complaints—in fact every phase of the operator's job. They were encouraged to express their opinions, give us their gripes, and criticize our procedures. All cards were placed face up on the table, mistakes acknowledged and the thinking of the supervisory official was discussed. If he was wrong, his mistake was admitted, but the men were told he would be reinstructed just as they were reinstructed.

They learned there is continual "refresher training" for supervisory personnel. We want them to understand the motives behind our actions—reasons for things being done as they are. This is important! We gave them the reasons. Discipline to us means to train, develop and improve. Severe penalties, such as suspensions, come only after the individual has become an "habitual problem," or indicated by his behavior that he cannot be salvaged.

During this first day, we let the men "blow their tops" if they wish. We have had some pretty rough minutes but usually have had satisfactory answers to their criticism. We use an "unconscious role playing" technique on the men. That is, we try to get one of the "rebels" on a subject to be the "come on" man. We let him get critical and voice his views. By questions, answers and "fishing" tactics we lead him up to a climax. Usually at this point, other, more conservative members of the group come to our rescue and give the solution to his problem as well as a rebuttal to his criticism. It is far more effective for a member of his own group to give an answer than for one of the instructional staff. (Examples might be: Running ahead of schedule, passing up people, discourtesy to passengers.)

The second day is given over to our insuring agent, Transit Casualty. Carlton Sypher, safety engineer, and his staff are in charge of this day's work. They too use the group approach. Certain safety problems are acute—if they are solved, others will fall by the wayside. Our objective is to clear up and solve these critical problems.

Our safety program is strictly preventive. We are attempting to keep men out of trouble and, thereby, reduce claim costs. In line with this, our training day is spent in an attempt to get the men to see our problem and to understand how we are attacking it. They discuss accident situations from the standpoint of how the operator got himself into his predicament. Keep out of trouble is our watchword and we teach them how. They learn to estimate speed and distance, what to do at the scene of an accident, and how to handle people who are involved in an accident.

The accident report is discussed and trainees are given a thorough explanation of what is desired on the report and why it is important. Reasons are stressed rather than the actual facts. We want the men to know the "why" as well as the "how." When they know the "why," the act becomes meaningful, and they do a more thorough and effective job.

The last portion of the day is given over to one of our trial attorneys. He is a member of the legal staff, and has had courtroom contact with our men. We feel this helps him and it certainly adds an appeal to the men. He begins with the statement "you have had the accident, now what do you do?" Discussion covers their behavior at the scene of the accident, their conduct in relation to observers at the scene and methods of handling people who will possibly become claimants. The group has reviewed for them the legal phases of the claims settlement, courtroom procedure and questions answered about accident problems from the legal point of view. He talks in non-legal language and gives the men frank facts about our claims situation. This session has proven one of greatest interest to the men. It clarifies the accident cost problem by removing many of the mysteries about claims handling that has too long been in the minds of the men.

At the end of the second day, the men are given a booklet that contains a topical brief of all the important facts covered in the two day session.

We have no formal follow-up program to determine the effectiveness of the program, but we have had many voluntary comments and letters of appreciation from the men. We have also noticed a decided improvement in the content and structure of our accident reports as well as a general improvement in the attitude of our men toward the public and their job.

I. C. C. Weighs Views on Proposed Safety Rule Revisions

Reactions to the 45,000-word, 150-page proposed revision of the Interstate Commerce Commission's motor carrier regulations will all be in when PUBLIC SAFETY for January, 1951, crosses your desk, since at this writing (December 15), deadline for filing written data, views or argument of interested parties was set for December 29th.

If the revised regulations or any substantial portion of them are adopted, it will mark the first major overhaul of the rules since they were first promulgated 11 years ago.

The proposals were advanced to the I.C.C. by its Bureau of Motor Carriers, headed by W. Y. Blanning, pursuant to an order of investigation issued in 1946.

The proposed safety rule revisions affect private, contract and common carrier buses, trucks and trailers, employee qualifications and hours of service, inspection and maintenance, accessories, specifications of varying kinds, and traffic rules and signals.

Theme of the recommendations throughout is that of fixing responsibility. The rule framers center on the duties and obligations of the driver in many cases—in each of which the re-written proposals provide that "no driver shall drive, etc.," as compared with the original version (existing rules) which provided that "no motor vehicle shall be operated, etc."

Equally concerned were the rule framers with fixing responsibility upon the vehicle owner, i.e., the motor carrier as distinguished from the driver, for certain other duties and obligations.

The proposed revision of the I.C.C. Motor Carrier Regulations has been extensively re-written. Even where the substance of existing rules within respective regulations is proposed for retention, the wording has been changed in most instances and in at least two of the parts of the revision the changes are so extensive that the I.C.C. has made no attempt to compare old and new rules but has printed the proposed new parts in their entirety.

Some of the most noteworthy features of the proposed rule revision can be covered in these dozen points.

1. Drivers must pass a stricter physical examination at least once every 12 months.

2. A record of persistent traffic violations, poor accident record, or a serious criminal record is sufficient to disbar a driver from employment.

3. Motor carriers are prohibited from scheduling trips in such a manner that a driver would have to exceed speed limits to meet it.

4. Every driver *shall obey* the instructions of all traffic control devices placed by a duly constituted authority for the purpose of regulating, warning or guidance of traffic.

5. Drivers must inspect equipment.

6. Stricter stop rules at grade crossings are called for, especially when vehicle is carrying passengers, explosives or other dangerous commodities.

7. Emergency stop signals are detailed at great length.

8. The exact procedure which must be followed in event of accident is set forth in detail.

9. Retroreflective surfaces (reflectorized glass-beaded adhesives) may be used but must not simulate traffic control signs or distort the length and/or width of any vehicle.

10. Brakes are required on all wheels, except that trucks and tractors of three or more axles need not have brakes on the front wheels pending the outcome of tests.

11. Wheel flaps are required at rear wheels of all buses, trucks, full trailers, semi-trailers and pole trailers.

12. Rear ends of vehicles must be equipped with bumpers.

The foregoing dozen changes are but a few of the many proposed. Approximately four closely typewritten pages cover the subject of glazing and window construction, with special attention to push-out windows and obstructions. Another dozen pages covered specifications for tow-bars and saddle-mounts for drive-away operations.

Physical examinations for drivers (farmers excepted) are toughened up. Heretofore, new drivers were required to pass physicals on employment. The new rules provide a stiff physical examination for all drivers every 12 months. Specified is 20/40 vision in each eye, with or without glasses, as compared with 20/40 in one eye and a permissible 20/100 in the other; also much stricter is the "form field of vision" requirements.

In addition, the driver must have a hearing rating of 10/20 in each ear, for conversational tones, without hearing aids. The present rule merely calls for "adequate hearing."

A six-page list of instructions for making physicals and recording findings is contained in the appendix of the rule revision.

Requirements for keeping the drivers' logs are set forth in considerably more detail than at present. Carriers will be required by the new rule revision to keep originals of logs on file for a year.

The excerpts noted are but a few items in the many covered in the 150-page proposed revision of the Interstate Commerce Commission's motor carrier regulations. A perusal of the revision is recommended for all who desire particular information. Copies have been sent out by the Commission and are believed to be available through W. P. Bartel, secretary, Interstate Commerce Commission, Bureau of Motor Carriers, Washington, D. C.

C. V. Executive Committee Set for Dallas Meeting

Motor transportation safety in a war economy will be the major item on the agenda for executive committee members of the Commercial Vehicle section meeting January 29 and 30 at the Baker Hotel in Dallas, it has been announced by General Chairman C. D. Calkins, director of safety, Pacific Motor Trucking Company of San Francisco.

Another major item of discussion will be the planning of the 1951 NSC Congress program. Max R. Jensen, superintendent of operations, Consolidated Freightways, Inc., Portland, Oregon, is Congress program chairman.

Committee members will be guests of the Texas Motor Transportation Association at a luncheon Tuesday. After the luncheon, members will tour the properties of the Strickland Transportation company, as guests of the company and J. Raymond Weber, safety director.

S. E. Pratz, assistant manager, Heldt Brothers, Alice, Texas, and L. R. Shankle, supervisor of equipment and safety, Southern Pacific Transport Company, Houston, Texas, are the executive committee members in charge of arrangements.

Quiz Kids on Safety Telecast

NBC's "Quiz Kids" made the first telecast under the Advertising Council's new TV Allocation Plan on Friday, December 15. Representing the National Safety Council at the broadcast was Wilbur Shaw, president of the Indianapolis Speedway and famed racing star. Mr. Shaw is shown directly behind the Reactometer used in the safety portion of the telecast. Left to right in the picture are: Joel Kupperman, Naomi Cooks, Pat Conlon, Mr. Shaw, Joe DiLorenzo of the Chicago Motor Club and Quizmaster Joe Kelly.

Green Cross News

From Page 19

Good Team Work

The St. Joseph (Mo.) Safety Council and the local Automobile Club have given wide distribution to an inexpensive yet attractive safety dodger, a 4" x 9" single sheet printed on green paper. On one side in inch-high black type letters appears he injunction, "Steps to Take for Safety's Sake." On the reverse page 10 pertinent rules and suggestions "for your safety" are listed.

"Nod" from Uncle Sam

Durand C. Young, manager of the Sioux Falls (S. D.) Safety Council for the past three years, has entered the United States military forces, called into service by Uncle Sam. Young, a veteran of World War II, will report for duty at the Receiving Station, San Francisco (Treasure Island), on January 11. He was a Yeoman in World War II and has an application pending for a Reserve commission.

Attractive Bulletins

The Rochester (N. Y.) Safety Council recently published an attractive bulletin on Child Safety, "Keep 'em Living," a planographed two-color job. In the latest issue the carefully prepared, well written safety material covers pre-school, elementary and teen-age groups. . . . To place more emphasis on the traffic accident problem, Manager Ed Smith has also made wide distribution of another 9" x 12" leaflet, in which a strong editorial from the Rochester *Democrat-Chronicle* is reprinted on a background of newspaper headlines of traffic deaths.

Five Chicago Traffic Policemen Get Cash Awards

Five patrolmen assigned to the Chicago Police Traffic Division recently received $100 awards for "outstanding and meritorious service."

Each of the five is a graduate of Northwestern University Traffic Institute police administration course. The officers are: John D. Madl, Hamilton W. Pool, Terrence T. Doherty, Ernest W. Bauer, and Kenneth G. Kells.

The awards, announced by Chicago's Mayor Martin H. Kennelly, were recommended by the Committee on Awards of the Mayor's Chicago Youth Foundation. In all 39 policemen and firemen received awards.

Glenn Carmichael Joins NUTI Staff

Glenn V. Carmichael, for the past three years manager of the Oklahoma Safety Council, joined the training staff of the Traffic Institute, Northwestern University, January 1.

The announcement by Franklin M. Kreml, director of the Institute, stated that Mr. Carmichael will supervise the new chief driver license examiner training program to be offered at NUTI for the American Association of Motor Vehicle Administrators.

Mr. Carmichael formerly served on the staff of the National Safety Council as driver license consultant. He came to the Council in June, 1938 from the Oklahoma Department of Public Safety, where he had beeen supervising examiner and helped establish the state's driver license program. He later served as southeastern field representative, NSC, with headquarters in Atlanta.

In 1945 he joined the staff of the American Association of Motor Vehicle Administrators as field representative. He assisted in numerous training courses for examiners, conducted three driver license seminars, helped develop manuals on vision, examining disabled drivers, and standard licensing procedure. He also edited the *National Driver Examiner*.

In 1948, Mr. Carmichael was named manager of the Oklahoma Safety Council, and was instrumental in developing a public support program which resulted in a major improvement in the state's traffic code, additional men for the Highway Patrol and an expansion of driver license activities. He was loaned to the Oklahoma Department of Public Safety for six months, serving as assistant commissioner, and helped to publicize the new traffic code and train additional personnel.

As a member of the Traffic Institute staff, Mr. Carmichael will serve under Gerald O'Connell, director of training, and will work closely with James Stannard Baker, director of research, who is responsible for developing the training courses for chief driver license examiners.

The first course "Standards for Driver Examinations," will be conducted March 5-23. Other courses will be given yearly through 1954.

* * *

ADVICE TO SPEAKERS

Any speaker who doesn't strike oil within 10 minutes had better stop boring.

Traffic Safety and the World We Live In

From Page 6

passengers are more and more frequently urged, as are other crash protection measures. Some kind of "dead man control," or equivalent warning signal, would reduce the common hazard of falling asleep at the wheel. Our voluminous "fan mail," like yours, contains many crack-pot proposals but this question I found it hard to answer: when good brakes are so vital, why should "second and third grade brake linings" be advertised and sold?

In mentioning these unsolved problems I am far from implying that mechanical faults are the chief cause of accidents. The average car is undoubtedly safer than the average road, and both are safer than the average driver. I have spoken first of design, partly because you and I are engineers, and safety like charity must begin at home; but chiefly because in any problem the engineering solution, if there is one, is always the best. It is the easiest, because machines are easier to understand than people; they are more tractable, they don't talk back. The engineering solution also is the cheapest because it is permanent, while education and enforcement must be kept up year after year. "The traffic signal," says David Lilienthal, "is a simple social invention for living together more harmoniously."

I have no bright idea for solving any of the specific problems mentioned. I have great confidence that they will some day be solved by the same ingenuity and persistance with which you have already accomplished so much.

Coordination of Vehicle and Highway Design

To illuminate my next point, please bear with me in an absurd assumption: that we all were living under a benevolent, omnipotent, omniscient dictatorship.

Under this imaginary regime there would have been, beginning around 1900, a Highway Transport Planning Board. This group of miracle men would have planned, step by step, the mechanical development of the motor vehicle and the parallel development of the highways and of legal and social controls. There would have been, for example, no more dispute over size, weight and speed of vehicles in relation to highway capacity than there is in a well-planned factory over size, weight and speed of machines in relation to floor capacity. Development of the whole highway transport system from decade to decade would have been orderly and harmonious.

Such super-planning is not only impossible but repugnant. But what we actually have had may almost be

Next Page

Coming Events in the Field of Safety

Jan. 8-12, Washington, D. C.

Thirtieth Annual Meeting of the Highway Research Board (National Academy of Sciences, 2101 Constitution Avenue).

Jan. 24-26, Berkeley, Calif.

Third California Conference on Street and Highway Problems. The Institute of Transportation and Traffic Engineering, University of California (Life Sciences Bldg.), Berkeley, Calif.

Feb. 6-7, Philadelphia

Seventeenth Annual Philadelphia Regional Safety Conference & Exhibit (Bellevue-Stratford Hotel). Contact Walter W. Mathews, managing director, Philadelphia Safety Council, 17th and Sansom Streets, Philadelphia 3, Pa.

Feb. 20-22, Urbana, Ill.

Thirty-seventh Illinois Annual Conference on Highway Engineering. Contact William S. Pollard, Jr., Highway Conference Committee, c/o University of Illinois, College of Engineering, Department of Civil Engineering, Urbana, Ill.

March 1-3, Chicago

Third Annual Meeting of the American Academy of Forensic Sciences (Drake Hotel). All persons desiring to present papers are requested to contact Dr. A. W. Freirich, chairman of the Program Committee, 180 Hempstead Avenue, Malverne, N. Y. For other information, write Dr. R. B. H. Gradwohl, M.D., President, 3514 Lucas Avenue, St. Louis 3, Mo.

March 4-6, Birmingham, Ala.

Twelfth Annual Southern Safety Conference (Tutwiler Hotel). Contact Braxton B. Carr, executive secretary, Southern Safety Conference, 2120 First Avenue North, Birmingham 3, Ala.

March 19-20, Boston

Thirtieth Annual Massachusetts Safety Conference & Exposition. Contact Edgar F. Copell, president, Massachusetts Safety Council, 31 State Street, Boston 9, Mass.

April 3-6, New York

Twenty-first Annual Greater New York Safety Convention & Exposition (Hotels Statler and Governor Clinton). Contact Paul F. Stricker, executive vice president, Greater New York Safety Council, Inc., 60 East 42nd Street, New York 17, N. Y.

April 18-20, Tulsa, Okla.

Annual Oklahoma Statewide Safety Conference (Mayo Hotel). Contact Lloyd Palmer, acting manager, Oklahoma State Safety Council, 1600 N. W. 23rd Street, Oklahoma City, Okla.

April 19-20, Louisville, Ky.

Annual Kentucky Statewide Safety Conference (Kentucky Hotel). Contact Estel Hack, managing director, the Louisville Safety Council, 214 Speed Bldg., Louisville, Ky.

April 19-21, Kansas City, Mo.

Central States Safety Congress. George M. Burns, director, Kansas City Safety Council, 419 Dwight Bldg., Kansas City 9, Mo.

April 24-26, Pittsburgh

Twenty-sixth Annual Western Pennsylvania Safety Conference and Exhibit (Hotel William Penn). Contact Harry H. Brainerd, executive manager, Western Pennsylvania Safety Council, Inc., 605 Park Bldg., Pittsburgh 22, Pa.

April 26, New Haven, Conn.

Connecticut Safety Society, Annual Conference. Donald H. Ackley, c/o G. and O. Manufacturing Co., New Haven, Conn., P. O. Box 1860.

May 9, Bethlehem, Pa.

Twenty-fourth Annual Eastern Safety Conference. Contact Harry C. Woods, executive secretary, Lehigh Valley Safety Council, 602 East Third St., Bethlehem, Pa.

May 14-16, Syracuse, N. Y.

Central New York Safety Conference & Exposition (Hotel Syracuse). Contact Walter L. Fox, executive secretary, Safety Division, Syracuse Chamber of Commerce, 351 Warren Street, Syracuse, N. Y.

May 16-18, Winston-Salem, N. C.

Twenty-first Annual North Carolina Statewide Industrial Safety Conference (Robert E. Lee Hotel). Contact H. S. Baucom, safety director, North Carolina Industrial Commission, Raleigh, N. C.

May 24-26, Norfolk, Va.

Seventeenth Annual Meeting of the Virginia Statewide Safety Conference. Contact Wm. M. Myers, executive secretary, Room 49, Allison Bldg., Richmond 19, Va.

June 4-8, Chicago

Twenty-eighth Annual Midwest Safety Conference (Congress Hotel). Contact Joseph F. Stech, manager, Greater Chicago Safety Council, Suite 805, 10 North Clark Street, Chicago 2, Ill.

June 21-23, Salt Lake City, Utah

Thirteenth Annual Meeting of the Western States Safety Conference. Contact Clarence Williams, executive director, Utah Safety Council, State Capitol Building, Salt Lake City, Utah.

Jan. 24-26, Berkeley, Calif.

Third Annual California Conference on Street and Highway Problems, Berkeley Campus, University of California.

NEW PUBLICATIONS in the field of Public Safety

Books and Pamphlets

Motor Carrier Fire Accidents—1949. Published by Interstate Commerce Commission, Washington 25, D. C., 1950. 47p.

Solving Highway and Motor Vehicle Problems Through Interstate Cooperation. Published by New York Joint Legislative Committee on Interstate Cooperation, 522 Fifth Ave., New York 18, N. Y. 1950. 35p.

Summary of State Legislative Action in 1950 in the Field of the Uniform Vehicle Code. Published by State and Local Official's National Highway Safety Committee, 912 Barr Bldg., Washington 6, D. C. 1950. 10p.

Traffic Engineering Handbook—published by the Institute of Traffic Engineers, Strathcono Hall, New Haven, Conn. 1950. 514 pages, $6.00.

This second edition of the Handbook is a complete and up-to-date revision of the original 1941 edition, containing a great deal of important new engineering data that have been developed since the first edition was published. The purpose of this Handbook is not to serve as a text book on traffic engineering, but rather to gather in one volume basic traffic engineering data. It serves as a guide to the best practice in those portions of the field in which well-accepted principles have been established. The Handbook will serve as a day-to-day reference work for those who have responsibility for originating or passing upon the technical study and solution of traffic and transportation problems. It contains chapters prepared by nationally known traffic engineers, dealing with such subjects as traffic accidents, signs, signals and markings, one-way streets and arterial routes, traffic studies, roadway capacity and design, speed regulation and zoning, motor vehicle characteristics, parking and loading practices, and pedestrian protection and control.—Ross G. Wilcox.

Magazine Articles

Accident Location File on a Ten-Year Basis. By Edmund R. Ricker. (In *Traffic Engineering,* Oct. 1950. p. 13).

Attitudes are Important in Safety Program. (In *Better Roads,* Nov. 1950. p. 39).

Driveway Control in Richmond, Virginia. By Marshall B. McReynolds. (In *Traffic Engineering,* Oct. 1950. p. 11).

Novel Channelizing. By H. K. Glidden. (In *Roads and Streets,* Nov. 1950. p. 48).

Parking Problems of American Cities. By Theodore M. Matson. (In *Traffic Engineering,* Oct. 1950. p. 7).

Some Elements of Good Snow Removal. By William S. Foster. (In *American City,* Nov. 1950. p. 95).

A State Highway Traffic and Planning Division. By Kenneth G. McWane. (In *Traffic Engineering,* Nov. 1950. p. 55).

Traffic Signal Installation and Maintenance. (In *Roads and Streets,* Nov. 1950. p. 42).

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termed super-non-planning. Year after year you have built more, better, often bigger and heavier and faster cars, trucks and buses. The highway builders have tried in vain to keep up with you; so have the legislators, tax experts, police and educators. The hot battle over truck weights and pavement destruction is only one example.

Some of this confusion and waste, including the waste from accidents, can be charged to the inevitable temporary inefficiency of democratic free enterprise which in the long run is so remarkably efficient. Still, the confusion should not continue indefinitely. The impossibility of complete super-planning is no excuse for permanent super-non-planning. We should be able now to get together and make up our minds what kind of vehicles and roads we want and are willing to pay for.

The engineer's immediate responsibility is to build the safest possible vehicles and highways. His larger responsibility includes energetic support of such official and other programs as will bring maximum benefit and minimum harm to all who use or are affected by his product.

Government

Government is one of our chief devices for living together. And government—political science—is one of the social sciences which have had a hard time catching up with the Machine in general and with the automobile in particular. In our ever-shrinking, ever more complex world we cannot get along without government and we have almost equal difficulty in getting along with it.

We all want more help from, and less regulation and taxation by government; but what helps one regulates and taxes another. Like the small boy who scrambled his biblical quotations and said "A lie is an abomination unto the Lord, a very present help in trouble," so the rugged individualist finds government an abomination in general but a very present help when he needs an unsecured loan or a protective tariff.

Some of our pressing problems are: How can we get the "good" citizen to vote, to take more interest in the people he votes for? How can we attract and hold better people in public office? How can government and free enterprise get along together? How can federal, state, county and municipal governments get along together? How can we accomplish in government the coordination that is taken for granted in private business?

Every one of these general problems of government is encountered in traffic regulation and safety. And all three of your Beecroft lecturers have contributed greatly to their solution.

Paul Hoffman has consistently maintained that government is primarily responsible for efficient, safe highway transportation and that businessmen, in fact all citizens must help and support government to that end. This idea is quite a blow to the great American pastime of passing the buck to the "politicians" while at the same time abusing and thwarting them; yet the concept has made considerable headway. You all know how the automobile and other industries have supported the training of police, engineering and other traffic officials; the development of standards, of professional status and pride in their work;

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OPERATION *Safety*

THE February Operation Safety theme, which has as its slogan: "Know and Obey Traffic Laws," is based on the premise that *intent*, or *lack of intent* to violate the law, is quite immaterial to the deceased victim of a fatal traffic accident. The cost to him is no less great if the violating driver contributed to the accident through ignorance of the law, than it would be if the action was premeditated and carried out in open defiance of the law.

The materials that have been prepared for distribution with the February Operation Safety kit concentrate on the violating driver and the overwhelming part he plays in our annual toll of highway accident victims. In 1949, for example, a driver violation was reported in more than 70 per cent of the fatal traffic accidents! The February kit includes five pattern news releases, five five-minute interview type radio scripts, and a series of radio spot announcements all aimed at the importance of traffic laws and the part they play in this complex age.

As an additional feature of the February program, speech material has been included on the subject, "Know and Obey Traffic Laws." This speech material is based on the Model Traffic Code and the Model Traffic Ordinance, and is easily adaptable to local deviations from the standards used. Dealing with four separate topics, the material may be used as the basis for four distinct speeches, or may be combined into one continuous presentation. The four subjects are: Traffic and Speed Regulations; Turning and Passing; The Right-of-Way; and Pedestrian Safety Regulations.

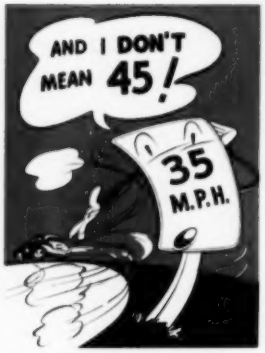
Nine one-column newspaper mats, complete with cut-lines and short filler paragraphs, are also made available to Operation Safety users in connection with the February program. A topical tie-in with traffic safety in the form of a three-column newspaper cartoon "Traffic Valentines," may also be obtained for February use.

Because of the importance, and the wide interest in the subject of traffic laws and ordinances, all members of the Public Safety Education Committee have been asked to give their special attention to the February Planning Guide, and no sub-committee has been appointed.

TRAFFIC and MOTOR

TO MOTORISTS **TO PEDESTRIANS**

FEBRUARY DESIGNS



NATIONAL SAFETY COUNCIL

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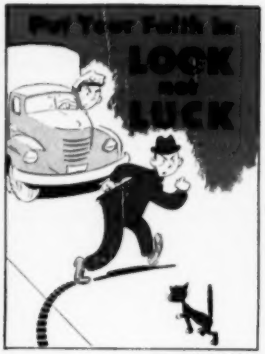
T-9173-B 17x23



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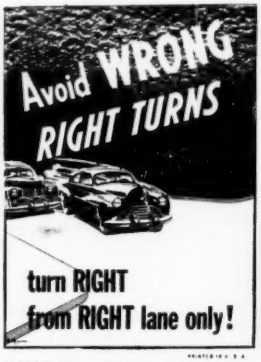
ADVANCE SHOWING MARCH DESIGNS



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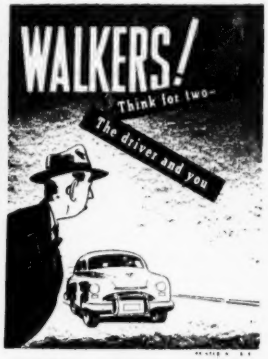

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POSTER PRICES

Quantity	25"x38"	17"x23"	8½"x11½"
1-9	$0.29 ea.	$0.18 ea.	$0.09 ea.
10-99	.23 ea.	.15 ea.	.05 ea.
100-999	.19 ea.	.138 ea.	.046 ea.
1000-4999*	.17 ea.	.102 ea.	.034 ea.

(Posters on opposite page are double these prices to non-members of the National Safety Council.) YOUR CREDIT LINE can be imprinted (at the time of the press run) on any of the featured traffic posters of these sizes only: 25"x38" and 17"x23". Details on imprinting and deadline dates for imprinted orders will be sent on request. *Write for prices on quantities of 5,000 or more.

ANNUAL POSTER ORDERS. Write for special rates.

TRANSPORTATION POSTERS

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V-9192-A 8½x11½

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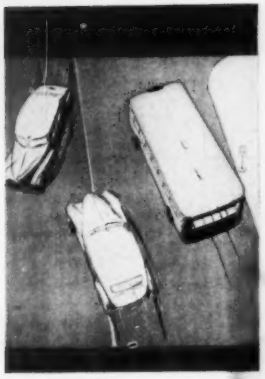
V-9191-A 8½x11½



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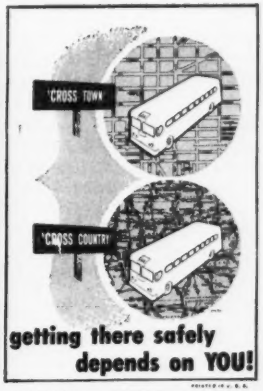
NATIONAL SAFETY COUNCIL
V-6886-A 8½x11½



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V-7345-B 17x23

NATIONAL SAFETY COUNCIL
9034-B 17x23

NATIONAL SAFETY COUNCIL
9188-A 8½x11½

W.C.6 17x23

7449-A 8½x11½

The TRAFFIC TOLL

By H. Gene Miller

Eleven month traffic death toll 31,230 — up 10 per cent over last year. November toll is 3,210, 8 per cent more than in November last year. Staggering holiday traffic toll presages gloomy final figure for '50

GLOOM and foreboding accompanied the tabulation of the traffic toll for the first 11 months of 1950. When returns were in from 46 states and 409 cities, the totals showed 31,230 killed in traffic during the 11 months—a 10 per cent hike over last year's toll for the same period. In November alone, traffic deaths totalled 3,210—8 per cent more than in the same month of 1949.

The November figures marked the 12th consecutive month to show an increase. The growing number of deaths was apparently in direct ratio to increasing mileage. Mileage figures are not available for November, but for 10 months—travel was estimated at 388.8 billion miles—11 per cent more than the 10-month travel total last year and 40 per cent greater than for the corresponding period in 1941.

Thus the mileage death rate (deaths per 100,000,000 miles) remained at the all-time low level for 10 months of 7.2—the same as last year, but 37 per cent under the 1941 rate of 11.5.

All regions of the country showed increases in traffic deaths for the 11-month period ranging from 5 to 19 per cent. For November alone, all regions, except the Mountain, had increases ranging from 1 to 20 per cent. Deaths in the Mountain region were down 12 per cent. The changes in deaths, by regions, are as follows:

Region	Per Cent Changes 1949-1950 November	11 Months
North Atlantic	+ 6%	+ 5%
South Atlantic	+20%	+18%
North Central	+ 6%	+ 7%
South Central	+13%	+17%
Mountain	—12%	+19%
Pacific	+ 1%	+ 5%

Of the 46 reporting states for November, 16 had decreases in deaths, three reported no change and 27 showed increases. For the 11-month period, 8 reported decreases and 38 showed increases.

The eight states which showed improvement in their death records for the 11-month period in 1950 compared to 1949 were:

North Dakota	—35%
Oklahoma	— 5%
Maine	— 5%
Vermont	— 5%
Pennsylvania	— 4%
Minnesota	— 2%
Arkansas	— 2%
Utah	— 1%

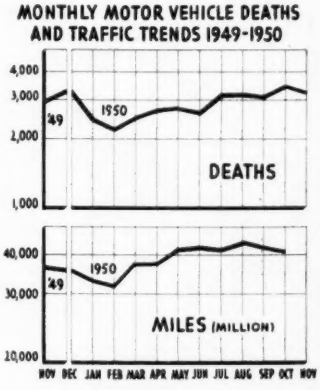
The death records of 409 reporting

The author is Director of the Council's Traffic & Transportation Division.

MOTOR-VEHICLE DEATHS

MONTH	1948	1949	1950	1948-50 Change	1949-50 Change
January	2,197	2,350	2,470	+12%	+ 5%
February	2,077	1,970	2,210	+ 6%	+12%
March	2,235	2,150	2,470	+11%	+15%
April	2,230	2,340	2,670	+20%	+14%
May	2,734	2,430	2,720	— 1%	+12%
June	2,494	2,370	2,610	+ 5%	+10%
July	2,813	2,790	3,150	+12%	+13%
August	3,110	2,890	3,180	+ 2%	+10%
September	3,006	2,950	3,100	+ 3%	+ 5%
October	3,230	3,070	3,440	+ 7%	+12%
November	2,974	2,970	3,210	+ 8%	+ 8%
Eleven Months	29,100	28,280	31,230	+ 7%	+10%
December	3,159	3,220	.....	.....	.....
TOTAL	32,259	31,500	.....	.....	.....

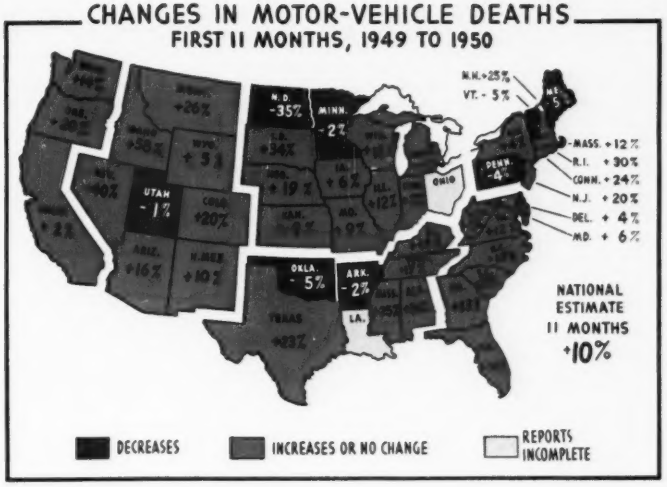
The 1948 figures are those of the National Office of Vital Statistics. All others are National Safety Council estimates. The 1950 national estimate is arrived at by assuming that the percentage change from 1949 to 1950 in the states reporting for both years reflects the 1949-50 change in the entire country. Since national estimates made in this way become more accurate as more states report, revisions are made from time to time as new reports are received for the various months. For this reason the figures given above for 1950 may differ slightly from figures for the same months which will be published in future issues of PUBLIC SAFETY.



cities of more than 10,000 showed a November increase of 2 per cent and an 11-month increase of 5 per cent, whereas the national November increase was 8 per cent and the 11-month increase was 10 per cent.

The following table gives the percentage change in deaths by population groups, for November and the 11-month period.

	Percentage Change 1949-1950	
	November	11 Months
All Reporting Cities	+ 2%	+ 5%
Group I (over 1,000,000)	+24%	+ 1%
Group II (750,000-1,000,000)	+19%	+ 8%
Group III (500,000-750,000)	—29%	+12%
Group IV (200,000-500,000)	+ 7%	+10%
Group V (100,000-200,000)	+ 4%	— 2%
Group VI (50,000-100,000)	—34%	+10%
Group VII (25,000-50,000)	+10%	+14%
Group VIII (10,000-25,000)	—48%	— 1%



Of the 409 reporting cities for November, 102 had decreases, 223 reported no change, and 84 showed increases. For the 11-month period, 149 reported decreases, 79 had no change and 181 had increases.

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TRAFFIC DEATHS—STATE RECORDS

Deaths are reported by state traffic authorities, except for Louisiana, Michigan, New Mexico and Ohio which are reported by registrars of vital statistics.

Population Rate: U. S. population rate is the estimated annual number of deaths per 100,000 population, assuming that deaths for the rest of the year will follow the normal seasonal pattern. State population rate is the estimated annual number of deaths per 100,000 population, assuming that the monthly average of deaths will remain at the present average for the rest of the year.

Population rates are based on the 1950 Census.

Mileage Rate: The number of deaths per 100,000,000 vehicle miles of travel.

States shown in heavy type have improved in 1950 compared with 1949 or showed no change. All figures are provisional.

(Figures in parentheses following the 1950 mileage rate indicate the number of months for which the mileage rate is calculated for each state.)

	Months Reported	Deaths Identical Period 1950	1949	1948	% Changes 1949 to 1950	1948 to 1950	1950 Pop. Rate	1950 Mile. Rate
TOTAL U.S.	11	31,230	28,280	29,100	+ 10%	+ 7%	23.2	7.2 (10)
Ala.	11	704	519	585	+ 36%	+ 20%	25.1	10.5 (9)
Ariz.	11	283	244	265	+ 16%	+ 7%	41.2	10.5 (10)
Ark.	**11**	**341**	**347**	**369**	**— 2%**	**— 8%**	**19.5**	**7.6 (10)**
Calif.	11	2,711	2,645	2,542	+ 2%	+ 7%	27.9	6.8 (9)
Colo.	11	348	289	314	+ 20%	+ 11%	28.6	7.8 (9)
Conn.	11	226	182	218	+ 24%	+ 4%	12.3	3.8 (10)
Del.	11	80	77	75	+ 4%	+ 10%	27.4	7.8 (9)
Fla.	11	755	570	611	+ 32%	+ 24%	29.7	8.7 (9)
Ga.	11	799	601	648	+ 33%	+ 23%	25.3	9.4 (9)
Idaho	11	224	142	193	+ 58%	+ 16%	41.5	8.9 (9)
Ill.	11	1,801	1,602	1,766	+ 12%	+ 2%	22.6	7.0 (10)
Ind.	11	1,018	1,000	951	+ 2%	+ 7%	28.2	7.5 (9)
Ia.	11	533	501	511	+ 6%	+ 4%	22.2	5.8 (10)
Kans.	11	465	454	438	+ 2%	+ 6%	26.6	6.0 (9)
Ky.	11	603	534	457	+ 13%	+ 32%	22.3	9.5 (10)
La.	10	452	413	424	+ 9%	+ 7%	20.2	8.6 (10)
Me.	**11**	**137**	**144**	**167**	**— 5%**	**— 18%**	**16.4**	**5.3 (9)**
Md.	11	441	418	358	+ 6%	+ 23%	20.5	7.1 (10)
Mass.	11	449	402	374	+ 12%	+ 20%	10.4	3.8 (9)
Mich.	11	1,445	1,307	1,324	+ 11%	+ 9%	24.7	7.0 (9)
Minn.	**11**	**476**	**486**	**513**	**— 2%**	**— 7%**	**17.4**	**5.2 (9)**
Miss.	11	419	336	356	+ 25%	+ 18%	21.0	8.5 (10)
Mo.	11	768	703	729	+ 9%	+ 5%	21.2	5.1 (6)
Mont.	11	193	153	157	+ 26%	+ 23%	35.6	7.8 (9)
Neb.	11	277	233	239	+ 19%	+ 16%	22.8	5.9 (10)
Nev.	11	98	70	87	+ 40%	+ 13%	66.8	10.6 (7)
N. H.	11	75	60	73	+ 25%	+ 3%	15.3	4.2 (9)
N. J.	11	610	510	533	+ 20%	+ 14%	13.8	3.9 (9)
N. M.	11	289	262	250	+ 10%	+ 16%	46.3	11.5 (10)
N. Y.	11	1,742	1,678	1,608	+ 4%	+ 8%	12.8	5.7 (10)
N. C.	11	869	762	663	+ 14%	+ 31%	23.3	7.8 (9)
N. D.	11	82	127	94	— 35%	— 13%	14.4	4.4 (10)
Ohio	9	1,316	1,310	1,313	0	0	22.1	6.5 (9)
Okla.	**11**	**445**	**469**	**461**	**— 5%**	**— 3%**	**21.7**	**6.4 (6)**
Ore.	11	365	303	380	+ 20%	— 4%	26.2	6.2 (9)
Pa.	**11**	**1,357**	**1,408**	**1,509**	**— 4%**	**— 10%**	**14.1**	**5.1 (9)**
R. I.	11	69	53	47	+ 30%	+ 47%	9.5	3.6 (9)
S. C.	11	590	478	462	+ 23%	+ 28%	30.4	10.8 (8)
S. D.	11	162	121	130	+ 34%	+ 25%	27.1	6.0 (4)
Tenn.	11	644	551	567	+ 17%	+ 14%	21.3	8.0 (10)
Texas	11	2,075	1,691	1,824	+ 23%	+ 14%	29.4	7.3 (9)
Utah	**11**	**162**	**164**	**186**	**— 1%**	**— 13%**	**25.7**	**6.6 (8)**
Vt.	**11**	**56**	**59**	**68**	**— 5%**	**— 18%**	**16.2**	**4.5 (10)**
Va.	11	802	716	645	+ 12%	+ 24%	26.4	8.8 (10)
Wash.	11	452	397	456	+ 14%	— 1%	20.7	5.5 (9)
W. Va.	11	334	318	364	+ 5%	— 8%	18.2	7.2 (9)
Wis.	11	769	664	737	+ 16%	+ 4%	24.4	7.2 (8)
Wyo.	11	137	131	138	+ 5%	— 1%	51.4	9.5 (10)
CANADIAN CITIES								
B. C.	7	59	82	84	— 28%	— 30%	12.5	....
Man.	**11**	**64**	**86**	**84**	**— 26%**	**— 24%**	**9.7**	....
Ont.	9	549	594	490	— 8%	+ 12%	19.5	....
Sask.	10	69	79	78	— 13%	— 12%	9.3	....

TRAFFIC DEATHS—CITY RECORDS

The table covers only motor-vehicle deaths resulting from traffic accidents that occurred in the city. Nontraffic motor-vehicle deaths (where the accident occurred on home or industrial premises) are not included; nor are deaths in the city from accidents occurring outside.

Rankings are based on the 1950 registration death rate which is the number per 100,000 registered vehicles. Vehicle registration figures are for the year 1949 and were supplied by R. L. Polk & Company.

Cities are ranked by death rates—from low to high. When two or more cities have exactly the same rate, ranking is by size of total vehicle registration—from large to small.

Cities shown in heavy type have improved in 1950 compared to 1949.

The population death rate is the number of deaths reported annually per 100,000 population.

	Eleven Months 1950	1949	1948	1950 Reg. Rate	1950 Pop. Rate
ALL REPORTING CITIES				3.3	9.3
Group I (1,000,000 and Over)					
1. Los Angeles, Calif.	236	233	246	3.2	13.2
2. Detroit, Mich.	175	156	174	3.4	10.4
All cities in this group				4.3	8.8
3. Philadelphia, Pa.	147	125	133	4.7	7.8
4. New York, N. Y.	475	507	506	4.8	6.6
5. Chicago, Ill.	359	358	430	5.3	10.9
Group II (750,000 to 1,000,000)					
1. San Francisco, Calif.	47	51	81	2.3	6.7
2. Cleveland, Ohio	83	81	85	3.2	10.0
All cities in this group				3.5	9.1
3. Washington, D. C.	61	57	48	4.0	8.3
4. Baltimore, Md.	76	74	69	4.1	8.8
5. St. Louis, Mo.	90	69	87	4.5	11.5
Group III (500,000 to 750,000)					
1. Minneapolis, Minn.	33	31	48	2.1	7.0
2. Milwaukee, Wis.	39	43	39	2.7	6.7
3. Buffalo, N. Y.	44	41	44	3.1	8.3
All cities in this group				3.4	8.6
4. Houston, Tex.	58	42	56	3.5	10.6
5. Cincinnati, Ohio	49	37	62	3.8	10.7
6. Pittsburgh, Pa.	50	59	77	3.9	8.1
7. New Orleans, La.	47	34	53	5.1	9.0
Group IV (200,000 to 500,000)					
1. Providence, R. I.	11	11	14	1.5	4.8
2. Syracuse, N. Y.	9	11	12	1.6	4.5
3. Rochester, N. Y.	18	22	25	1.7	5.9
4. Atlanta, Ga.	23	41	28	2.2	7.7
5. Seattle, Wash.	41	48	54	2.4	9.7
6. Honolulu, T. H.	19	19	25	2.4	8.8
7. Oklahoma City, Ok'a.	21	13	18	2.5	9.4
8. St. Paul, Minn.	24	24	36	2.5	8.5
9. Dayton, Ohio	24	32	35	2.6	10.8
10. Kansas City, Mo.	31	22	39	2.7	7.5
11. Omaha, Neb.	18	21	27	2.9	7.9
12. Denver, Colo.	38	45	43	3.0	10.0
13. Oakland, Calif.	37	39	40	3.1	10.6
14. Toledo, Ohio	33	34	43	3.1	11.9
15. Dallas, Tex.	45	31	42	3.1	11.5
16. Portland, Ore.	47	23	45	3.2	13.8
17. Long Beach, Calif.	30	30	36	3.2	13.4
All cities in this group				3.2	10.6
18. Richmond, Va.	21	17	15	3.3	10.0
19. Akron, Ohio	28	28	39	3.4	11.2
20. Newark, N. J.	32	25	34	3.5	8.0
21. Miami, Fla.	38	22	31	3.7	16.8
22. Columbus, Ohio	41	32	40	3.7	11.9
23. Worcester, Mass.	17	12	13	4.2	9.2
24. Fort Worth, Tex.	55	38	27	4.4	15.8
25. San Antonio, Tex.	47	47	56	4.6	12.6
26. Memphis, Tenn.	37	27	31	4.9	10.2
27. Jacksonville, Fla.	29	20	22	5.2	15.6
28. Birmingham, Ala.	37	30	40	5.7	13.5
29. San Diego, Calif.	55	46	37	6.1	18.7
Group V (100,000 to 200,000)					
1. Allentown, Pa.	1	3	7	0.0	1.0
2. Wichita, Kans.	5	15	7	0.5	2.0
3. Utica, N. Y.	2	7	8	0.8	2.1
4. Tampa, Fla.	4	14	8	1.0	3.5
5. Springfield, Mass.	6	7	9	1.5	4.0
6. Waterbury, Conn.	4	2	9	1.6	4.2
7. Corpus Christi, Tex.	5	9	9	1.6	5.1
8. Grand Rapids, Mich.	12	7	11	1.6	7.5
9. Austin, Tex.	6	7	10	1.7	5.0
10. Evansville, Ind.	7	18	10	1.8	7.0
11. Tulsa, Okla.	12	15	17	1.8	7.2
12. Shreveport, La.	7	10	10	1.9	6.1
13. Phoenix, Ariz.	13	15	9	2.0	13.5
14. Berkeley, Calif.	7	22	2	2.1	6.7
15. Salt Lake City, Utah	13	23	16	2.1	7.8
16. Fort Wayne, Ind.	11	15	16	2.1	9.0
17. South Bend, Ind.	9	16	18	2.2	8.5
18. Trenton, N. J.	10	8	12	2.2	8.5
19. Canton, Ohio	9	6	11	2.2	8.4
20. Wilmington, Del.	8	10	6	2.4	7.9
21. Reading, Pa.	7	12	11	2.5	7.0
22. Erie, Pa.	10	12	21	2.5	8.4
23. Bridgeport, Conn.	11	5	9	2.7	7.5
24. Tacoma, Wash.	14	14	15	2.8	10.7
25. Baton Rouge, La.	9	9	4	2.8	7.9
All cities in this group				2.9	9.6
26. Yonkers, N. Y.	8	6	4	3.0	5.7
27. Hartford, Conn.	13	7	5	3.0	8.0
28. New Haven, Conn.	12	16	9	3.1	8.0
29. Pasadena, Calif.	15	8	13	3.1	15.7
30. Peoria, Ill.	12	7	9	3.2	11.7
31. Sacramento, Calif.	20	22	20	3.2	16.1
32. Arlington, Va.	11	3	5	3.3	8.9
33. Youngstown, Ohio	17	19	28	3.6	11.1
34. Norfolk, Va.	15	22	12	3.6	8.7
35. Duluth, Minn.	9	15	21	3.6	9.4
36. Des Moines, Ia.	19	20	25	3.9	11.7
37. Flint, Mich.	23	15	25	3.9	15.4
38. Spokane, Wash.	20	14	19	4.0	13.6
39. Little Rock, Ark.	10	6	15	4.0	10.8
40. Montgomery, Ala.	10	6	5	4.1	10.4
41. Elizabeth, N. J.	12	4	7	4.7	11.6
42. El Paso, Tex.	18	18	13	6.1	15.1
43. Cambridge, Mass.	14	5	7	6.4	12.7
44. Chattanooga, Tenn.	21	13	18	6.7	17.6
45. Nashville, Tenn.	38	19	27	7.2	23.9
46. Gary, Ind.	27	31	24	9.1	22.2
Group VI (50,000 to 100,000)					
1. Berwyn, Ill.	0	3	2	0.0	0.0
2. Brookline, Mass.	0	3	1	0.0	0.0
3. Wilkes-Barre, Pa.	1	7	2	0.5	1.4
4. East Orange, N. J.	1	6	2	0.6	1.4
5. Durham, N. C.	1	9	3	0.6	1.6
6. Lincoln, Neb.	2	4	4	0.7	2.2
7. Muskegon, Mich.	2	2	5	0.8	4.5
8. Pawtucket, R. I.	2	1	2	1.0	2.7
9. Johnstown, Pa.	2	4	7	1.0	3.5
10. Cleveland Hts., Ohio	2	5	1	1.1	3.7
11. Mount Vernon, N. Y.	2	3	1	1.1	3.0
12. Topeka, Kans.	3	3	1	1.1	4.2
13. Winston-Salem, N. C.	3	4	5	1.2	3.8
14. Jackson, Mich.	3	2	1	1.2	6.4
15. San Jose, Calif.	6	9	14	1.3	6.9
16. New Rochelle, N. Y.	2	1	0	1.3	3.7
17. Joliet, Ill.	3	6	5	1.4	6.2
18. Huntington, W. Va.	3	6	4	1.5	3.8
19. Orlando, Fla.	4	1	3	1.6	8.4
20. Kalamazoo, Mich.	5	3	10	1.6	9.5
21. Passaic, N. J.	2	0	4	1.6	3.8
22. Binghamton, N. Y.	4	5	6	1.7	5.4
23. Battle Creek, Mich.	4	4	4	1.7	9.0
24. Portland, Me.	3	3	5	1.7	4.3
25. Green Bay, Wis.	3	5	12	1.7	6.2
26. Medford, Mass.	2	1	0	1.7	3.3
27. Springfield, Mo.	4	2	4	1.7	6.6
28. Santa Monica, Calif.	4	8	10	1.7	6.1
29. Alameda, Calif.	5	2	4	1.8	5.2
30. Lancaster, Pa.	4	2	6	1.8	6.9
31. San Bernardino, Calif.	5	16	19	1.8	8.5
32. Covington, Ky.	3	3	7	1.9	5.1
33. Fresno, Calif.	11	11	9	2.0	13.2
34. Alexandria, Va.	4	3	1	2.0	7.1
35. Lansing, Mich.	8	4	8	2.0	9.5
36. Columbia, S. C.	6	5	10	2.0	7.6
37. Racine, Wis.	4	7	7	2.1	6.2
38. Springfield, Ohio	5	8	7	2.1	7.0
39. Columbus, Ga.	4	4	6	2.2	5.5
40. New Britain, Conn.	4	1	4	2.2	5.9
41. Cedar Rapids, Iowa	5	2	3	2.3	7.6
42. Charleston, S. C.	4	3	3	2.5	6.4
43. St. Joseph, Mo.	5	5	16	2.5	7.2
44. Glendale, Calif.	10	10	10	2.5	11.4
45. Sioux Falls, S. D.	4	3	4	2.5	8.4
46. Greensboro, N. C.	6	9	3	2.6	8.9
All cities in this group				2.7	9.2
47. Sioux City, Iowa	6	8	9	2.7	7.8
48. Roanoke, Va.	6	10	5	2.7	7.2
49. Brockton, Mass.	4	9	4	2.8	6.9
50. Hamilton, Ohio	5	9	4	2.8	9.6
51. Bay City, Mich.	5	5	5	2.9	10.4
52. St. Petersburg, Fla.	10	5	14	2.9	11.4
53. East Chicago, Ind.	3	10	12	3.0	6.0
54. Lakewood, Ohio	6	1	3	3.0	9.6
55. Stockton, Calif.	12	12	12	3.0	18.3
56. Davenport, Iowa	7	5	7	3.0	10.4
57. Evanston, Ill.	6	1	5	3.1	9.0
58. Springfield, Ill.	10	12	10	3.3	13.5
59. Macon, Ga.	7	2	4	3.4	10.9
60. Saginaw, Mich.	12	13	10	3.4	14.2
61. Decatur, Ill.	8	7	0	3.5	12.9
62. Pueblo, Colo.	7	4	10	3.5	12.0
63. Jackson, Miss.	9	9	6	3.5	10.1
64. Charleston, W. Va.	9	7	10	3.6	13.5
65. Manchester, N. H.	6	4	6	3.6	7.9
66. Stamford, Conn.	6	2	7	3.6	8.9
67. Madison, Wis.	10	6	7	3.8	11.4
68. Albuquerque, N. M.	13	9	5	3.8	14.6
69. Lynn, Mass.	7	5	5	3.9	7.7
70. Lowell, Mass.	7	7	7	4.3	7.9
71. Lorain, Ohio	7	5	4	4.5	15.0
72. Muncie, Ind.	9	5	10	4.5	16.8
73. Raleigh, N. C.	11	8	6	4.5	18.5
74. Pontiac, Mich.	16	5	7	5.0	23.9
75. Terre Haute, Ind.	12	10	8	5.1	20.5
76. Clifton, N. J.	8	6	3	5.2	13.5
77. Dearborn, Mich.	17	18	17	5.2	19.6
78. Richmond, Calif.	15	6	6	5.3	16.5
79. Waterloo, Iowa	11	2	6	5.4	18.6
80. Portsmouth, Va.	9	4	4	6.2	13.8
81. Hammond, Ind.	13	15	22	6.6	16.2
82. Cicero, Ill.	12	5	11	7.0	19.5
83. Holyoke, Mass.	9	4	3	7.9	18.1
84. Wheeling, W. Va.	12	6	8	8.1	22.3
85. Atlantic City, N. J.	9	4	3	8.2	15.9
Group VII (25,000 to 50,000)					
1. Beverly Hills, Calif.	0	3	3	0.0	0.0
2. White Plains, N. Y.	0	3	4	0.0	0.0
3. Wyandotte, Mich.	0	3	5	0.0	0.0
4. Independence, Mo.	0	4	4	0.0	0.0
5. Newport News, Va.	0	5	1	0.0	0.0
6. Rome, N. Y.	0	3	4	0.0	0.0
7. Manitowoc, Wis.	0	1	1	0.0	0.0
8. Meriden, Conn.	0	1	1	0.0	0.0
9. Shaker Heights, Ohio	0	2	3	0.0	0.0
10. Teaneck, N. J.	0	1	1	0.0	0.0
11. Mt. Lebanon, Pa.	0	0	0	0.0	0.0
12. Belmont, Mass.	0	0	0	0.0	0.0
13. Tucson, Ariz.	1	7	2	0.3	2.4
14. Ann Arbor, Mich.	1	0	2	0.6	2.3
15. Lake Charles, La.	1	1	0	0.7	2.6
16. Billings, Mont.	1	2	4	0.7	3.4
17. High Point, N. C.	1	1	2	0.8	2.7
18. Dubuque, Iowa	1	4	5	0.8	2.2
19. Bloomfield, N. J.	1	2	1	0.9	2.2
20. W. Hartford, Conn.	1	1	3	0.9	2.5
21. Oshkosh, Wis.	1	5	5	0.9	2.7
22. Clarksburg, W. Va.	1	0	3	1.0	3.4
23. Chicopee, Mass.	1	1	1	1.0	2.2
24. Colorado Spgs., Colo.	2	3	4	1.0	4.8
25. Waltham, Mass.	1	1	1	1.0	2.3
26. Wausau, Wis.	1	2	2	1.0	3.6
27. Kankakee, Ill.	1	1	0	1.1	4.2
28. Manchester, Conn.	1	2	5	1.1	3.2
29. Bristol, Conn.	1	2	1	1.1	3.0
30. West Allis, Wis.	2	2	5	1.1	5.1
31. Pensacola, Fla.	2	5	0	1.1	5.0
32. Mason City, Iowa	1	1	1	1.1	3.9
33. Mogantown, W. Va.	1	0	1	1.1	4.3
34. Fond du Lac, Wis.	1	0	2	1.1	3.7
35. Hackensack, N. J.	1	2	1	1.2	3.7
36. Oak Ridge, Tenn.	1	1	0	1.2	3.6
37. Provo, Utah	1	5	4	1.2	3.8
38. Poughkeepsie, N. Y.	2	1	0	1.3	5.3
39. Winona, Minn.	1	1	1	1.4	5.4
40. Vallejo, Calif.	2	3	0	1.4	9.4
41. Middletown, Conn.	1	1	5	1.4	3.7
42. Palo Alto, Calif.	2	4	2	1.5	8.6
43. Jamestown, N. Y.	2	4	12	1.5	5.0
44. Wauwatosa, Wis.	2	2	0	1.5	6.5
45. Concord, N. H.	1	0	4	1.6	3.9
46. Belleville, Ill.	2	4	5	1.6	6.7
47. Lakeland, Fla.	2	3	3	1.6	7.1

	Eleven Months 1950	1949	1948	1950 Reg. Rate	1950 Pop. Rate
48. Royal Oak, Mich.	**3**	**5**	**5**	**1.8**	**7.0**
49. Cheyenne, Wyo.	2	2	2	1.9	6.9
50. Watertown, N. Y.	2	2	2	1.9	6.4
51. Bloomington, Ill.	**2**	**4**	**2**	**1.9**	**6.4**
52. Rochester, Minn.	2	0	2	1.9	7.4
53. Bloomington, Ind.	2	0	1	2.0	7.7
54. Galesburg, Ill.	2	2	4	2.0	6.9
55. Boise, Idaho	4	1	2	2.1	12.7
56. Steubenville, Ohio	2	1	3	2.1	6.1
57. Mansfield, Ohio	**4**	**5**	**3**	**2.2**	**10.0**
58. Danbury, Conn.	2	0	2	2.2	7.1
59. Torrington, Conn.	2	0	1	2.2	7.8
60. Kingston, N. Y.	**2**	**4**	**0**	**2.2**	**7.5**
61. Plainfield, N. J.	**3**	**4**	**2**	**2.3**	**7.7**
62. Kokomo, Ind.	**3**	**4**	**1**	**2.3**	**8.5**
63. St. Cloud, Minn.	**2**	**3**	**1**	**2.3**	**7.7**
64. Linden, N. J.	2	2	2	2.3	7.2
65. Waukegan, Ill.	**3**	**4**	**4**	**2.4**	**8.4**
66. Great Falls, Mont.	3	0	9	2.4	8.4
67. Marion, Ohio	4	1	0	2.5	9.7
68. Parma, Ohio	2	1	1	2.5	7.5
All cities in this group				2.6	8.8
69. New Kensington, Pa.	2	1	1	2.6	8.7
70. Rock Island, Ill.	4	1	3	2.6	9.0
71. Eau Claire, Wis.	3	2	0	2.6	9.1
72. Elkhart, Ind.	4	4	2	2.6	12.2
72. Tallahassee, Fla.	3	3	2	2.7	12.0
73. Vancouver, Wash.	4	4	3	2.8	15.6
74. Middletown, Ohio	**3**	**4**	**0**	**2.8**	**9.7**
75. Arlington, Mass.	3	1	3	2.8	7.4
76. Anderson Ind.	5	5	5	2.9	11.7
77. Zanesville, Ohio	4	2	5	3.0	10.8
78. Parkersburg, W. Va.	3	3	9	3.0	11.1
79. Barberton, Ohio	3	2	12	3.1	11.7
80. Beloit, Wis.	3	2	1	3.2	11.1
81. New London, Conn.	3	1	3	3.2	10.8
82. Elmira, N. Y.	5	3	2	3.3	11.0
83. Norwich, Conn.	**3**	**4**	**3**	**3.3**	**8.7**
84. Everett, Wash.	5	4	3	3.4	16.2
85. Fairfield, Conn.	2	1	5	3.4	7.2
86. Riverside, Calif.	**7**	**8**	**11**	**3.5**	**16.5**
87. Rapid City, S. D.	3	3	4	3.6	13.0
88. Petersburg, Va.	3	1	5	3.6	9.4
89. Meriden, Conn.	4	3	4	3.7	10.0
90. Orange, N. J.	3	2	2	3.7	8.5
91. Stratford, Conn.	3	0	2	3.8	9.7
92. Ft. Lauderdale, Fla.	6	2	8	4.0	18.2
93. Daytona Beach, Fla.	4	3	11	4.0	14.9
94. Norwalk, Conn.	3	3	3	4.0	6.6
95. Ferndale, Mich.	4	2	6	4.0	14.7
96. La Crosse, Wis.	5	4	1	4.1	11.5
97. Burlington, Iowa	4	2	1	4.1	14.2
98. Hamtramck, Mich.	**3**	**8**	**11**	**4.3**	**7.6**
99. San Mateo, Calif.	6	3	3	4.4	15.8
100. Tuscaloosa, Ala.	**4**	**6**	**4**	**4.5**	**9.4**
101. Highland Pk., Mich.	6	4	7	5.1	14.2
102. Moline, Ill.	6	6	3	5.2	17.6
103. Appleton, Wis.	6	0	2	5.2	19.3
104. Fitchburg, Mass.	5	2	3	5.2	12.8
105. Superior, Wis.	4	3	2	5.5	12.4
106. Newburgh, N. Y.	6	1	6	5.5	20.5
107. Council Bluffs, Iowa	7	5	3	5.6	16.9
108. Portsmouth, Ohio	6	6	8	6.0	17.8
109. West Haven, Conn.	6	1	4	6.1	20.5
110. Lr. Merion Twp., Pa.	**7**	**11**	**4**	**6.1**	**17.0**
111. Warren, Ohio	12	1	2	6.4	26.3
112. East Hartford, Conn.	6	1	0	7.9	22.4
113. Granite City, Ill.	6	0	5	8.1	22.5
114. Fairmont, W. Va.	8	4	2	8.6	29.8
115. Sandusky, Ohio	11	5	7	10.7	41.2
116. Kearny, N. J.	8	3	1	13.5	2.9
117. Greenwich, Conn.	11	6	4	15.3	29.6

Group VIII (10,000 to 25,000)

1. Walla Walla, Wash.	**0**	**3**	**3**	**0.0**	**0.0**
2. Benton Harbor, Mich.	**0**	**5**	**4**	**0.0**	**0.0**
3. Richland, Wash.	0	0	0	0.0	0.0
4. Salisbury, N. C.	**0**	**1**	**2**	**0.0**	**0.0**
5. Waukesha, Wis.	**0**	**1**	**5**	**0.0**	**0.0**
6. Freeport, Ill.	0	0	2	0.0	0.0
7. Vincennes, Ind.	**0**	**4**	**6**	**0.0**	**0.0**
8. Westfield, N. J.	0	0	2	0.0	0.0
9. Ames, Iowa	0	0	0	0.0	0.0
10. Stillwater, Okla.	**0**	**1**	**2**	**0.0**	**0.0**
11. Marietta, Ohio	**0**	**2**	**0**	**0.0**	**0.0**
12. Johnson City, N. Y.	**0**	**1**	**0**	**0.0**	**0.0**
13. Albert Lea, Minn.	0	0	0	0.0	0.0
14. Brainerd, Minn.	0	0	1	0.0	0.0
15. Reidsville, N. C.	0	0	1	0.0	0.0
16. Orangeburg, S. C.	**0**	**1**	**1**	**0.0**	**0.0**
17. Highland Park, Ill.	**0**	**3**	**2**	**0.0**	**0.0**
18. McAlester, Okla.	**0**	**1**	**0**	**0.0**	**0.0**
19. Arkansas City, Kans.	**0**	**2**	**1**	**0.0**	**0.0**
20. Annapolis, Md.	0	0	0	0.0	0.0
21. Fergus Falls, Minn.	0	0	1	0.0	0.0
22. Highland Park, Tex.	0	0	0	0.0	0.0
23. Atchison, Kans.	**0**	**3**	**1**	**0.0**	**0.0**

	Eleven Months 1950	1949	1948	1950 Reg. Rate	1950 Pop. Rate
24. Winnetka, Ill.	**0**	**1**	**0**	**0.0**	**0.0**
25. Hawthorne, N. J.	0	0	2	0.0	0.0
26. Windham, Conn.	**0**	**3**	**1**	**0.0**	**0.0**
27. Needham, Mass.	**0**	**1**	**0**	**0.0**	**0.0**
28. Brookfield, Ill.	**0**	**3**	**2**	**0.0**	**0.0**
29. Bristol, Va.	**0**	**1**	**2**	**0.0**	**0.0**
30. Beacon, N. Y.	0	0	1	0.0	0.0
31. Webster, Mass.	0	0	1	0.0	0.0
32. Derby, Conn.	**0**	**1**	**2**	**0.0**	**0.0**
33. Kenmore, N. Y.	1	0	1	0.9	5.4
34. Kingsport, Tenn.	**1**	**2**	**4**	**1.0**	**5.6**
35. Lockport, N. Y.	1	0	1	1.1	4.3
36. Janesville, Wis.	**1**	**2**	**5**	**1.1**	**4.4**
37. Mankato, Minn.	1	1	0	1.2	5.8
38. Austin, Minn.	**1**	**2**	**1**	**1.2**	**4.7**
39. Meadville, Pa.	1	0	0	1.3	5.8
40. La Porte, Ind.	**1**	**4**	**3**	**1.3**	**6.3**
41. East Liverpool, Ohio	**1**	**3**	**0**	**1.3**	**4.5**
42. Wooster, Ohio	1	0	0	1.3	7.8
43. Sumter, S. C.	**1**	**2**	**0**	**1.3**	**5.5**
44. La Grange, Ill.	1	1	0	1.4	9.1
45. Rahway, N. J.	**1**	**6**	**5**	**1.4**	**5.1**
46. Frankfort, Ind.	**1**	**3**	**1**	**1.5**	**7.3**
47. Webster Groves, Mo.	1	0	0	1.5	4.7
48. Aberdeen, S. D.	1	0	2	1.5	5.2
49. Owosso, Mich.	1	1	0	1.6	6.9
50. Klamath Falls, Ore.	2	2	0	1.6	13.8
51. Streator, Ill.	1	1	0	1.6	6.6
52. Connersville, Ind.	**1**	**3**	**3**	**1.6**	**7.0**
53. Bluefield, W. Va.	1	1	4	1.7	5.1
54. Martinsburg, W. Va.	1	1	2	1.7	7.0
55. Kinston, N. C.	1	0	1	1.7	6.0
56. Sterling, Ill.	**1**	**2**	**0**	**1.8**	**8.5**
57. Bismarck, N. D.	1	0	0	1.8	5.9
58. Fostoria, Ohio	**1**	**3**	**0**	**1.8**	**7.6**
59. Butler, Pa.	2	2	3	1.8	9.3
60. S. St. Paul, Minn.	**1**	**2**	**1**	**1.9**	**6.8**
61. Bristol, Pa.	**1**	**2**	**1**	**1.9**	**8.6**
62. Uniontown, Pa.	2	0	0	2.0	10.7
63. Watertown, Wis.	1	0	3	2.0	8.8
64. Faribault, Minn.	1	0	0	2.0	6.8
65. Norfolk, Neb.	1	0	1	2.1	9.7
66. Gardner, Mass.	**1**	**3**	**2**	**2.1**	**5.6**
67. Central Falls, R. I.	**1**	**3**	**0**	**2.1**	**4.6**
68. Birmingham, Mich.	2	2	0	2.2	14.2
69. Logan City, Utah	**1**	**3**	**3**	**2.2**	**6.5**
70. Ypsilanti, Mich.	2	0	3	2.2	11.9
All cities in this group				2.3	9.2
71. Beaver Dam, Wis.	1	0	0	2.3	9.2
72. Ponca City, Okla.	2	1	0	2.3	10.8
73. Rye, N. Y.	1	1	1	2.6	9.3
74. Fremont, Ohio	2	2	2	2.6	13.2
75. Rock Hill, S. C.	2	2	0	2.6	8.9
76. Holland, Mich.	**3**	**5**	**0**	**2.8**	**20.8**
77. Modesto, Calif.	6	3	4	2.8	37.9
78. Moundsville, W. Va.	1	0	3	3.0	7.4
79. Goshen, Ind.	2	0	0	3.2	16.8
80. Jacksonville, Ill.	**2**	**3**	**3**	**3.2**	**10.7**
81. Peru, Ind.	2	1	0	3.3	16.4
82. Grosse Pte. Pk., Mich.	2	2	2	3.3	16.8
83. Shelton, Conn.	1	0	0	3.5	8.8
84. Fort Myers, Fla.	**2**	**5**	**4**	**3.4**	**16.6**
85. Westfield, Mass.	**2**	**7**	**2**	**3.4**	**10.4**
86. Ashland, Wis.	1	1	0	3.7	10.3
87. Beckley, W. Va.	2	1	3	3.9	11.3
88. Millville, N. J.	2	2	1	3.9	13.5
89. Endicott, N. Y.	3	1	0	3.9	16.2
90. Niles, Ohio	**2**	**4**	**2**	**4.0**	**13.1**
91. Naugatuck, Conn.	2	0	0	4.0	12.5
92. Alpena, Mich.	2	2	3	4.0	16.6
93. Port Chester, N. Y.	3	1	1	4.0	13.6
94. Sweetwater, Tex.	2	1	1	4.2	16.0
95. Chillicothe, Ohio	4	3	3	4.4	21.7
96. East Moline, Ill.	2	1	2	4.5	15.7
97. Fort Madison, Iowa	2	0	0	4.6	14.6
98. Las Vegas, Nev.	4	2	2	4.7	17.9
99. S. Charleston, W. Va.	2	2	1	4.7	13.1
100. Ansonia, Conn.	2	1	1	5.0	11.7
101. W. Springfield, Mass.	3	1	2	5.3	16.0
102. Huntington, Ind.	4	0	1	5.5	29.1
103. Griffin, Ga.	3	2	1	5.6	23.4
104. Leominster, Mass.	3	0	2	5.6	15.6
105. Redlands, Calif.	4	3	2	5.7	23.7
106. Virginia, Minn.	2	0	2	5.7	17.7
107. Stevens Point, Wis.	3	0	2	6.2	19.7
108. Astoria, Ore.	4	2	1	6.6	35.7
109. So. Milwaukee, Wis.	2	2	0	6.7	17.0
110. Wilmette, Ill.	4	3	3	7.1	24.0
111. Muskegon Hgts., Mich.	4	1	2	7.6	23.2
112. Mamaroneck, N. Y.	4	0	0	9.8	29.1
113. Massena, N. Y.	4	0	1	10.3	33.3
114. Wallingford, Conn.	6	0	2	14.9	38.8
115. Saugus, Mass.	6	3	2	15.6	38.3

CANADIAN CITIES

Toronto, Ont.	39	45	52		6.5
Montreal, Que.	88	67	97		10.9
Vancouver, B. C.	36	31	25		14.5

The Traffic Toll

From Page 33

The following cities with populations of 200,000 or more reported decreases in their traffic deaths for the 11-month period.

Atlanta, Ga.	**—44%**
Dayton, Ohio	**—25%**
Rochester, N. Y.	**—18%**
Syracuse, N. Y.	**—18%**
Denver, Colorado	**—16%**
Pittsburgh, Pa.	**—15%**
Seattle, Washington	**—15%**
Omaha, Nebraska	**—14%**
Milwaukee, Wis.	**— 9%**
Fort Worth, Texas	**— 8%**
San Francisco, Calif.	**— 8%**
New York, N. Y.	**— 6%**
Oakland, Calif.	**— 5%**
Toledo, Ohio	**— 3%**

For November, 252 cities had perfect records. The largest no-death city was Wichita, Kans. (166,300); second largest was Bridgeport, Conn. (159,400), and the third largest was Yonkers, N. Y. (152,500). For the 11-month period, only 46 cities maintained perfect records. The largest was Brookline, Mass. (57,000); second largest was Berwyn, Ill. (51,200), and the third largest was White Plains, New York (43,500).

The leading cities in each population group for the first 11 months of 1950, ranked according to the number of traffic deaths per 10,000 registered vehicles, were:

	Reg. Rate
Over 1,000,000 Population	
Los Angeles, Calif.	3.2
Detroit, Mich.	3.4
Philadelphia, Pa.	4.7
750,000-1,000,000 Population	
San Francisco, Calif.	2.3
Cleveland, Ohio	3.2
Washington, D. C.	3.0
500,000-750,000 Population	
Minneapolis, Minn.	2.1
Milwaukee, Wis.	2.7
Buffalo, N. Y.	3.1
200,000-500,000 Population	
Providence, R. I.	1.5
Syracuse, N. Y.	1.6
Rochester, N. Y.	1.7
100,000-200,000 Population	
Allentown, Pa.	0.4
Wichita, Kansas	0.5
Utica, N. Y.	0.8
50,000-100,000 Population	
Berwyn, Illinois	0.0
Brookline, Massachusetts	0.0
Wilkes-Barre, Pa.	0.5
25,000-50,000 Population	
Beverly Hills, Calif.	0.0
White Plains, N. Y.	0.0
Wyandotte, Mich.	0.0
10,000-25,000 Population	
Walla Walla, Washington	0.0
Benton Harbor, Michigan	0.0
Richland, Washington	0.0

NEW PRODUCTS

Manufacturers are invited to send in announcements of new products, or improved special features. Only items which can be considered as "news" to our readers will be published. Additional information on these news items may be obtained by writing direct to the manufacturer. It will help in identifying the product to mention these announcements.

LIFE-SAVING APPARATUS

A new life-saving apparatus for police and fire departments, ambulance crews, hospitals, physicians and industrial plant safety has been developed by Mine Safety Appliances Co., Braddock, Thomas & Meade Sts., Pittsburgh, Pa. An "automatic breathing instrument," the portable apparatus is used for victims of drowning, electric shock, poisonous or suffocating gases, heart attacks, overdoses of drugs or any kind of asphyxiation. Called the "Pneolator," it consists of a rubber and plastic facepiece connected to two valves by two four-foot lengths of corrugated rubber tubing. One of the valves administers oxygen with positive pressure at regular intervals, cycling automatically. The other valve lets oxygen flow only when the patient inhales and stops the flow on exhalation. The valves are arranged so they interchange automatically, depending upon whether or not the victim is breathing.

The artificial respiration valve delivers oxygen at a pre-set pressure to the lungs of the victim whose breathing has stopped. It does not suck air from the lungs, however, because this action could be harmful in some cases. Instead, when the proper amount of oxygen has been admitted into the lungs, the valve shuts off and lets the elastic walls of the lungs and the flexible muscles of the diaphragm and chest handle exhalation by natural recoil.

If the patient is breathing, the inhalator demand valve automatically admits as much oxygen as the patient can handle. When he exhales the valve stops the flow until he again inhales. The pressure of the oxygen administered by the cycling valve can be varied to meet a wide range of conditions. The pressure regulating valve gauge is calibrated to show pressures in terms of centimeters of water. The cycling valve can be set at the low range to admit a gentle five centimeters, approximately 1.2 ounces pressure per square inch more than atmospheric pressure at sea level of 14.7 pounds. High setting of the valve is 30 centimeters, or 7.2 ounces pressure per square inch above atmospheric. The Pneolator operates on positive pressure only because mechanically induced negative pressure in the lungs has a tendency to increase flow of fluid if tissues are swollen or irritated. The unit is packed, ready to use, in a fiberglass carrying case that is strong enough to withstand the weight of an auto. In the case is a 22-cubic-foot tank of oxygen, approximately enough for a half-hour's use. The main valve connections, however, are arranged to permit attachment of additional oxygen supply from any outside source without disconnecting the regular tank. The entire assembly, with case, weighs approximately 41 pounds.

HEADLIGHT TESTER

New pin-point precision checking is now possible with the Bear No. 560 Headlight Tester. New beauty in styling with eye-catching colors adds to the merchandising value of this Bear unit.

Finding the hot-spot or highest intensity area is made positive by a unique photo-electric cell process. The exact center of the light being tested is identified by a small light dot on the tester screen. The positioning of the cell has finger-touch control. Positive leveling of the testing box and an improved sighting tube provide easy operation and fast, accurate work. An improved kink-lock makes up and down position control quick and smooth. This is the product of Bear Manufacturing Co., Rock Island, Ill.

FRAME-ALIGNMENT SERVICE

Bear Manufacturing Co., Rock Island, Ill., announce the new Bear No. 197-84 Super Frame-Alignment Service. Especially designed steel beams, clamps and heavy iron arms provide quick hook-ups for any

type of bend. The Bear Flexo-O-Power, which is part of this unit provides ample power to straighten the four "major bends" —sidesway, sag, buckled siderail and diamond frame—at one time. For flush or floor installation, the No. 197-84 is unlimited in its uses. Axle straightening and front end alignment are easily accomplished; checking of caster, camber, toe-in, king pin angle and turning radius is done easily and quickly. The step-beams, arms, angle clamps, camber hooks and extension bars can be purchased separately to bring old racks up-to-date or make frame straightening possible on Bear Alignment Racks.

NSC Opens Nominations for Public Interest Awards

The National Safety Council again is inviting nominations for its Public Interest Award as a means of honoring public information media which rendered exceptional service to safety in 1950.

Awards will be made in six categories—daily and weekly newspapers, radio and TV stations and networks, consumer and trade magazines, national and regional advertisers, outdoor and transportation advertising organizations, and theatrical motion picture producers.

The Public Interest awards are not competitive. They will be made only on the basis of exceptional service to safety as determined by a board of judges.

The board consists of Norman Damon, vice-president of the Automotive Safety Foundation; Dr. Frank Luther Mott, dean of the Missouri University school of journalism; Wesley I. Nunn, advertising manager of Standard Oil Co. (Ind.) and coordinator of the Advertising Council "Stop Accidents" campaign; J. F. Ratner, editor of *Better Homes & Gardens;* Robert K. Richards, director of public affairs for the National Association of Broadcasters; Miss Judith Waller, Central division director of public affairs and education, National Broadcasting Co., and Dwight Young, president of the American Society of Newspaper Editors and editor of the Dayton *Journal Herald.*

Nominations may be self-made or by an agent of the nominee on official blanks obtainable from the National Safety Council, 425 North Michigan Ave., Chicago 11, Ill., before the closing deadline of March 15, 1951.

The Council also announced that it again will administer the Alfred P. Sloan Radio Awards for Highway Safety at the request of the Alfred P. Sloan Foundation. Information and nomination blanks may be obtained from the Council.

The Sloan awards, which are competitive, are in addition to the Council's non-competitive awards, and are concerned only with the radio contribution to highway safety. They will be selected by a special jury from recipients of the Council's Public Interest Awards in the radio and advertiser classifications.

* * *

Undeveloped Area: Usually the space between your ears.

Gear Jammers' Jargon

From Page 15

skilled performance known as "double shifting." The "crash box" refers to the transmission, a "stack," or "de-stinker," describes the long exhaust pipe of diesel trucks, and a "wind check" means that the operator stops to check the pressure in his tires.

No legitimate trucker would think of leaving the terminal without his "manifest" unless he "bobtailed" his tractor (sans semi-trailer) to another terminal. Even if he "deadheaded" an empty trailer to trip's end, he would insist on his "walking papers."

Another universal symbol which truckers recognize is the sign of the professional driver—the National Safety Council's Safe Driver Award emblem. It sets the wearer apart as tops in safe driving performance and drivers know that a sign from the "kingfish" (their union representative) or a nod from the "old man," or the "brain" has nothing to do with their NSC pin. Since the NSC Safe Driver Award is based on their records, it is an impartial judgment of their defensive driving skill and their sense of responsibility. Naturally, it is the subject of much animated conversation at the coffee stops throughout the country, and occupies a prominent spot in the jargon of the driving fraternity.

Other words or phrases that make the trucker's talk rich in color will undoubtedly come to mind as supervisors or drivers read these lines. We would like to add to our collection and, perhaps, compile a glossary. And additions will be most welcome.

NUTI "Short Course" Opens April 23rd

A three-week course devoted to the basic essentials of the police officer's work in controlling traffic and helping to prevent accidents will be offered from April 23 to May 11, 1951, by the Traffic Institute of Northwestern University in Evanston, Ill.

The "short" course offered twice annually, in the spring and fall is open to all policemen who are in active service in city, county or state police organizations and whose attendance is approved by their department heads.

Nearly 1,500 police officers from the United States and Canada have attended this course which considers problems of both rural and urban police departments of all sizes. The course also acquaints student officers with public education and traffic engineering and their relation to police activity.

Instructors include staff members of the Traffic Institute and the Traffic Division of the International Association of Chiefs of Police, Northwestern University faculty members, police and other traffic officials, and representatives of leading safety organizations.

In addition to this three-week course the Traffic Institute offers a five-month course in traffic police administration, and courses and conferences for traffic court judges and prosecutors, chief driver license examiners, driver training instructors, motor vehicle fleet supervisors and persons who administer chemical tests for intoxication.

For further information on the police traffic training course or the other courses write to Frank Lowrey, course director, Traffic Institute, 1704 Judson Avenue, Evanston, Ill.

FOR THEIR SAFETY

• *We have a complete line of Safety Patrol Accessories.*

• White rubber raincoats, 100% rubber, may also be had in black or yellow. Long range visibility. Good the year round. School, city or sponsor's name on the back.

• Smart-looking Sam Browne belts in white web or plastic, also in yellow plastic. Metal hardware is of rustproof nickel. Adjustable.

• *Write for our illustrated folder on the many items.*

• *"America's Largest Safety Patrol Outfitters"*

Graubard's

266 MULBERRY STREET • NEWARK 2, N. J.

MOTOR TRANSPORTATION PANEL

From Page 9

Driver Award Plan is good business for our system. We use insurance company awards. They don't have the "sock" of the NSC Award but they do encourage the driver who is shooting for an accident-free record. For example, in 1948, we issued 113 NSC Safe Driver Awards and 127 insurance company awards. The 14 additional men who received the insurance company awards were not eligible for the NSC Safe Driver Award.

I wish that the NSC Safe Driver Award Plan were in operation in every transit company in the United States and Canada. It would mean that we could all work together on a uniform program of accident prevention in perfect harmony with each other to promote the biggest item in the transit business—the safety of the passenger.

ELMER SCHUEMANN: Our company became associated with the National Safety Council in June, 1931, 19 years ago. Since that time we have used the National Safety Council Safe Driver Award Plan and are still using it.

We have the highest respect for the highest national award that a vehicle operator can receive—the National Safety Council Safe Driver Award. This Safe Driver Award can be won only by experts who believe in and practice the rules of "defensive driving."

I think the proof of the program is the driver's performance—does he or does he not have accidents? With this thought in mind several drivers were approached and asked what they thought of the Safe Driver Award. The drivers questioned are wearing awards ranging from 4 to 8 years. Without exception all stated that they were proud of the award and were questioned and complimented many times by passengers who noticed the badge on their caps.

Motivation is the prime factor in building accident prevention. Interest and the desire for personal recognition is one of those motivating factors. The Safe Driver Award has been established in the minds of our men as a mark of distinction to be earned by diligent attention to duty and safety.

Publicizing the National Safety Council Safe Driver Award is most important. The more publicity you give the program, the better job you do in selling it to your employees. Put pictures and names of drivers who have won awards in local newspapers, house organs, and so on and each of them will throw out his chest.

We have a special meeting once a year before Christmas when awards are distributed and we give it as much publicity as possible.

Accident prevention should be one of the most important departments in a transit operation because operating costs, insurance premiums and revenue are affected by the accident experience. We think the Safe Driver Award is one of the most important tools in reducing this accident frequency.

A keen interest in safety prompts us to commend the National Safety Council for its booklet "For Experts Only." It is an asset in our training of new drivers.

The presentation of the booklet is an excellent opportunity for us to discuss the value of safe driving with each individual driver. Instead of just passing it out, each driver is called into my office and the contents of the booklet are discussed thoroughly. Personalized by our company's name imprinted on the front cover, it is then given to him for reference. A record is also filed on his reaction and attitude when this is done.

The information on defensive driving has been favorably accepted. Of their own accord, drivers have commented that the book is explanatory and that the regulations for receiving a National Safety Council Safe Driver Award are fair. They are convinced that the badge is not merely a token of luck but represents a job well done and is an incentive to continue in their pursuit of higher awards.

Through experience, we find that all our men want to do an efficient job. The NSC Safe Driver Award has added a lot to our safety program.

Discussion

DELEGATE: What percentage of accidents does Memphis call preventable?

FARLEY: About 40 per cent of our accidents in traffic are considered preventable.

DELEGATE: We are not altogether sold on the NSC Safe Driver Award Plan. We have about 3,000 trainmen. Of these, about 500 do not have accidents during the year. Our accidents are greatest among the new men and in periods of high accident frequency such as our rush hours. We are bothered about the courtroom angle. What would be the reaction if we had one of these NSC Safe Driver Award winners and he got into an accident and then got into court?

FARLEY: Seems to me you're in pretty bad shape if 2,500 of your operators are having accidents during the year. Any program would be an improvement.

OSBORNE: Perhaps you have the wrong conception of what the NSC Safe Driver Award is given for. It's given for defensive driving. A new or old man—regardless of traffic conditions—can learn to operate his vehicle in such a way at to prevent accidents. We try to keep accidents from happening. If you permit operators to operate a vehicle without any philosophy of operation, of course you have accidents. Not having accidents under such conditions is largely a matter of luck. We teach our operators that their NSC Safe Driver Awards are their reward for defensive driving.

FARLEY: I would like to stress that the NSC Safe Driver Award is not given just because a driver has not had an accident. They are given when the driver's record for the period proves that he has done everything he can to prevent accidents. You can teach an operator that he can prevent accidents.

DELEGATE: How do you arrive at an evaluation of who's to blame?

FARLEY: The rules provide all that's necessary to fix the blame. The big question is, "Has the operator done everything possible to avoid the accident?" Answer that one and you know who's to blame.

DELEGATE: What percentage of operators can get awards in any one year? If you start the plan, how far back can you go in numbering (the number of years of safe driving for which awards may be issued)?

HALLIE MYERS, Immediate Past General Chairman: I would like to answer that one. Every driver is a potential Safe Driver Award winner. The percentage of those actually earning them runs somewhere around 60. In certifying your drivers for NSC Safe Driver Awards, you can go back to January 1, 1942, on a preventable accident basis, and as far back as January 1, 1930, when your records show no accidents of any kind.

DELEGATE: I would like to know if just using the NSC Safe Driver Award was the whole reason for the tremendous reduction in accidents which your companies have apparently enjoyed.

SCHUENEMAN: In our case it wasn't the only reason, but we can attribute the Safe Driver Award Plan of the Council as the major reason for our accident reduction.

FARLEY: In our case it's not 100 per cent of the reason, but from our experience, we can attribute about 90 per cent of our accident reduction to our use of the NSC Safe Driver Award Plan. It seems to me it's the program that works best. And we have had a drop in claims costs despite an increase in the cost of accidents that anyone can tell you is due to higher costs for everything. We have no other safety program.

DELEGATE: Are you crediting the National Safety Council Safe Driver Award Plan with the gains in cases where there are parallel plans?

FARLEY: Nothing parallel at all. There is no other program like the NSC program. It's about all we do. We explain the rules, the rules are enforced. It works. It seems to me that it's pretty simple.

DELEGATE: The panel member from Phoenix stated he had only 34 per cent of traffic accidents. That seems low.

RAWLINGS: I said that our 34 per cent takes in everything. We average about 51 per cent of accidents in traffic. Incidentally, when our operator makes out an accident report, he can make no mistake about it. Our report has in large letters across the top "Accident Report." And we define an accident as an "incident absolutely unforeseen and unavoidable."

OSBORNE: We ought to mention that there is room in the NSC Safe Driver Award Plan for the operator to appeal a decision he thinks is unfair. Such a question can be sent to the Council's Appeal or Review Board for a ruling. It's fair to all. We have an Appeal Board within the company. Our percentage of recommendations for change in the original decisions has been pretty low. Our appeal board consists of three representatives from our departments, three from the union, and a neutral or non-voting member.

DELEGATE: What happens if the auditor disagrees with your findings or finds you have given an award and a cash prize when you shouldn't have?

RAWLINGS: We are protected if the National Safety Council should reverse our opinions, and they have. We have had three reversals in three years. Our Review Committee consists of our superintendent of transportation, two union members and our captain of traffic. We have had seven appeals to the Council and were reversed on three of them.

DELEGATE: I'd like to say that we are in our first year at San Francisco—our first year of using the NSC Safe Driver Award Plan. We started out by publishing details of the plan in the San Francisco newspapers and through our transit media. Of 1,200 eligible for the Award, 892 have gone without a preventable accident. We do have a well-rounded accident prevention program in our company, but we have found the NSC Safe Driver Award Plan to be a valuable tool.

United Nations Drivers Attend Driving School

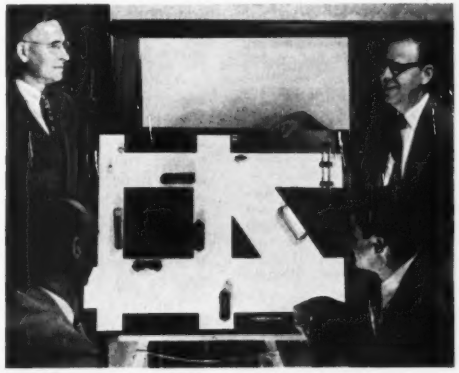
Field service representatives of the United Nations are going to school to learn to handle 4-wheel drive vehicles. The school was established in Toledo, Ohio, at the request of Carey Seward, acting chief of the UN field service.

Forty field representatives from 13 member countries of the United Nations have been given general orientation in operating and maintenance of motor vehicles and are now undergoing training in handling the vehicles in all kinds of terrain at the 600-acre farm of Charles E. Sorenson, vice chairman of the board of Willys-Overland, at Farmington, Mich.

Trainees attending the school are from Holland, Great Britain, Denmark, Canada, Sweden, Norway, the Phillipines, France, Honduras, Belgium, Costa Rica, the Republic of India, and the United States.

Add 33 Troopers to Indiana State Police

Thirty-three troopers have been added to the Indiana State Police. The new men were sworn-in September 1, after completion of an eight-weeks training course. They will be issued patrol cars and given their own patrols this month.



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Here is an aid that has proven practical in teaching visually the principles of safety. It's simple, effective and works wonders in teaching your drivers.
The MAGNO SAF-T BOARD is the result of studies by outstanding safety instructors and engineers. Safety directors, traffic managers, driving instructors, insurance agents and adjusters get a clear picture of how accidents occurred visually by reconstruction of conditions.
It is now being used from coast to coast by fleet owners, insurance and public utility companies, colleges and schools, and many other concerns interested in public safety. Consisting of a BOARD with typical street intersections on one side. The other side is a BLACKBOARD on which any street or road situation can be drawn with chalk and then erased. It has scale models of vehicles, traffic markers and accessories that can be placed in any conceivable traffic situation.

Write for our folder. It contains full information.

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TRADE PUBLICATIONS

There is a wealth of valuable and interesting information in the catalogs and publications listed below. They form splendid additions to your reference library, affording an opportunity to keep abreast of safety equipment. The coupon below will bring FREE to those responsible for the recommendation or purchase of equipment any or all of the catalogs listed.

1. Tire Chains: Information on tire chains for automobiles, trucks and buses describes both single and dual pneumatic tire types. Chain is bar reinforced for greater traction. *American Chain & Cable Company.*

2. Traffic Controllers: Bulletin E 10 gives details on controllers with one to three dials, the equivalent of three separate controllers for each intersection. Triple offset and total time cycle is accomplished on each dial. *Eagle Signal Corporation.*

3. Police Uniform Equipment: Pamphlets and price lists on police rain and storm coats. Other uniform equipment such as badges, whistles and Sam Brown belts included. *Graubard's.*

4. Parking Meters: Literature on new parking meters designed to eliminate hazards of theft and malfunction resulting from breakage and weather. Simple manual operation. *M. H. Rhodes, Inc.*

5. Traffic Training Board: Descriptive literature on traffic training device which consists of a 30" x 40" board with a series of typical intersections laid out on one side, country roads on the other. By means of magnetized model cars and model traffic signs, board can be used vertically for demonstrations of traffic problems. *Magno-Saf-T Board.*

6. Safety Lane Equipment: Illustrated material on safety lanes and equipment necessary for their establishment and operation. Included are testing equipment for headlights, brakes and wheel alignment. *Weaver Manufacturing Company.*

7. Magnetic Particle Inspection: Brochure with illustrations gives detailed description of magnetic particle inspection process which reveals flaws in metal parts under "black light." Glowing particles reveal exact shape, size, and extent of even smallest cracks. Useful for airline, bus, truck and automotive overhaul work. *Magnaflux Corporation.*

PUBLIC SAFETY JANUARY, 1951

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Traffic Safety and the World We Live In

From Page 29

the recognition that the people of a city or state simply can't afford dishonesty, lazy or stupid traffic police, judges or engineers. This has had far reaching repercussions toward better *general* functioning of government.

Arthur Vanderbilt, successful lawyer with a strong civic conscience, hence a leader in the organized bar and in politics, saw clearly in the sad state of the typical traffic court a cancer eating away at our whole judical system, destroying public confidence, thus threatening a foundation stone of our democracy. His Beecroft Lecture pictured the great progress that has been made, the patterns that have been established, and the remaining problems of traffic enforcement by both police and courts. Under his leadership, New Jersey now has the best traffic court system in the country.

Again the by-product is even more important than the direct result. Many lawyers who would themselves disdain to touch a traffic case, many judges of higher courts to which such cases never come, and a whole galaxy of civic organizations have been led to realize that none of us can afford to ignore what goes on in the "lower courts" which are in fact the foundation of our whole judicial system.

Thomas H. MacDonald, the world's foremost highway engineer and road builder, has made his greatest contribution as administrator of a very complex and delicate relationship between the Federal Government and the States. A lesser man either would have become cordially disliked as a usurper of state rights, or would have taken the easy path of subservience to local pressures. MacDonald's wise, patient, realistic middle course has not only given us a great national highway system; it has proved that Uncle Sam and his children can get along together. More and more States in their relations with counties and municipalities are following the same pattern of helpful cooperation.

The President's Highway Safety Conference

Hoffman, for Business, offered help; MacDonald, for Government, was quick to accept. Many others have shared the burden, notably the Chairmen of this meeting, Pyke Johnson. The flowering of this united thought and effort is to be seen in the President's Highway Safety Conference. This extraordinary institution has been aptly described by "The Chief" as "an unorganized organization." The phrase is a paradox and so is the Conference. It has no constitution or by-laws, no statute, no budget. If it is "run" by anybody, it is "run" by the collective imagination and judgment of those, in and out of office, who have shown themselves the most able so to contribute; if this ever ceases, the Conference will quickly die on the vine.

This anomalous institution has somehow gathered to its bosom all the interests, forces, programs, problems and aspirations of traffic safety. It has captured the attention of the public. It has stirred the imagination and stiffened the backbone of safety workers both official and civic.

I hope some brilliant social or political scientist will, before memory fades, write a book on The President's Highway Safety Conference as a case study in what makes America tick. It will be a book which no one in the Kremlin could possibly understand.

Mr. Williams' Beecroft Lecture will be continued in the February issue.

Caldwell Receives First Kemper Award

Bernard R. Caldwell, deputy chief in charge of traffic of the Los Angeles Police Department, received the first award of the Kemper Foundation for Traffic Safety for "outstanding contributions to traffic safety and better understanding between citizens and their police."

Chief Caldwell is a past chairman of the Council's Police Division. He received the award in Los Angeles recently from H. G. Kemper, president of the Lumbermans Mutual Casualty Company which sponsors the Kemper Foundation for Traffic Safety.

The award will be confined to NUTI graduates for outstanding citizenship, improvement of the police service and the prevention of death, injury and property damage on the nation's streets and highways.

"The bonds I bought for our country's defense —will see my twins through college!"

"Back in 1942 I joined the Payroll Savings Plan at the U. S. Naval Ordnance Plant where I work as an executive secretary. I put 10% of my salary into bonds to help win the war. And I still buy bonds."

"Through careful managing, the twins and I have lived comfortably and saved too. This fall the twins will enter Butler University—thanks to U. S. Savings Bonds, the best way to save I know!"

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Mrs. Callon's story can be your story, too!

What Mary Callon did, you can do, too—and just as easily! Just take these three simple steps—*today:*

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2. *Decide to save a regular amount* systematically, *week after week, or month after month.*

3. *Start saving automatically by signing up* today *in the Payroll Savings Plan where you work or the Bond-A-Month Plan where you bank. You may save as little as $1.25 a week or as much as $375 a month. If you can set aside just $7.50 weekly, in 10 years you'll have bonds and interest worth $4,329.02 cash!*

You'll be providing security not only for yourself and your family but for the free way of life that's so important to us all. And in far less time than you think, your plans will turn into reality, just as Mary Callon's are doing.

FOR YOUR SECURITY, AND YOUR COUNTRY'S TOO, *SAVE NOW*—THROUGH REGULAR PURCHASE OF U. S. SAVINGS BONDS!

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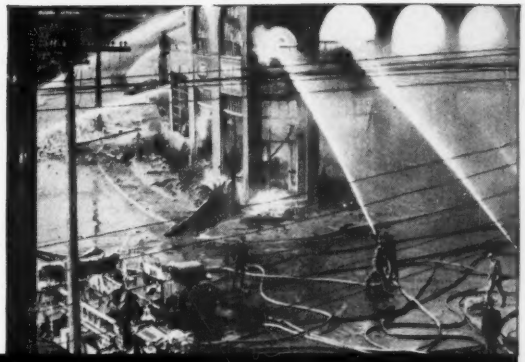
$652,000,000
annual fire loss.....



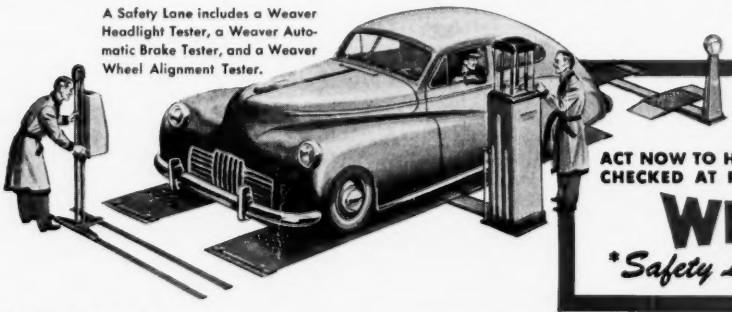
$3,050,000,000
annual economic loss due to automobile accidents...

The public accepts the cost of operating FIRE DEPARTMENTS to hold fire losses to a minimum... but what about adequate provision to reduce losses caused by AUTOMOBILE ACCIDENTS?

In 1950 over a million people were injured and nearly 35,000 persons died during the year as a result of automobile accidents. The economic loss including injuries, insurance, wages, and medical expense due to traffic accidents is reported to have totaled $3,050,000,000 in twelve months' time.

The automobile accident loss is several times as great as the annual fire loss—yet what's being done about it? Every community supports a program for the prevention of fires . . . Municipalities can and should act to also reduce traffic tragedy.

An automobile safety inspection program, with its extensive savings in property, life and injury, can be instituted and maintained on an entirely self-amortizing basis by a city or state. Consult Weaver on HOW YOU CAN DO IT in your city or state.



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